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a column of ideas and information for the art teacher
address all correspondence to AMALIA DI DONATO
Wm. Howard Taft High School, 240 E. 172nd St., N. Y. C. 57

ART FOR "DIFFICULT" TEEN AGERS:

In most city high schools you will find a group of early teen-agers who, for one reason or another, are problems. Some need a few extra points in a major subject to graduate. Some have low I.Q.'s, and others simply can't adjust to academic study. They seem to gravitate into a general course usually known as Crafts. Crafts is really a part of the art curriculum, but it does attract many young people who are unable to cope with the more rigid demands of subjects requiring academic follow-through and just plain book study. This is scarcely a nucleus about which to form training and appreciation of art. But, since we educators have to accept the challenge (and have no choice), it is up to us to make our course adhere to the same unbending

continued on page 136

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WHAT'S ON YOUR MIND?

continued from page 135

standards of discipline which govern the more formal curriculum.

Problem-minded teensters are, to put it mildly, a most heterogeneous group when banded together. The teacher is like a choice bit of meat tossed into the arena. Spilled paint, tossed water, flicked paint brushes, tacks on chairs—these are the tools of art turned to more provocative uses. The art teacher has to crack down at the first onslaught or face progressive chaos. The first step is to set up a busy program and keep it moving. The second step is to keep a definite and rigid record of required credits before a student is given a passing grade. Eliminate from your mind immediately any idea that art is too vague a subject to have passing grades. Set your standards and let the students see the literal progress evolve on a chart of earned credits. You might post this prominently. When a pupil sees his name and a series of blanks to be filled in as earned, he finds himself in open competition with his fellow students. If he falls behind, the embarrassing gap between his credits and those of his neighbors becomes obvious. What should your chart include? That's up to you, but it certainly should have a number of outside projects indicated. Research breeds discipline. It is self-discipline and that kind is invaluable.

I personally look for the major trouble-maker and make him or her my yardstick of progress. If I can capture that one's interest, the others will lose their most boisterous leader. And they will often follow the leader into more constructive channels. (Quite often, the biggest trouble-maker will be one of the more intelligent and more talented children. Individuals of small intelligence are more apt to be apathetic rather than hyper-active.)

A good form of project which demands concentration might be culled from the commercial art field and that demanding mechanical application. When you deal with this kind of a group, it is advisable to minimize permissive choice and freehand art. Later, as the student shows progress, you may gradually increase the imaginative aspects of art and craft. But at first, it's wise to tackle problems of scaling drawings up and down, matching colors to original objects, copying the anatomical details of birds and animals, and capturing the literal image of street scenes. Avoid abstraction at this level; it invites trouble and is an easy out for students who can pass off mediocrity as "the way I see it." And, as the term draws to a close, reward your students by a final project which might involve planning, creating and framing a painting or drawing. A jury of his fellow students might hold a secret ballot with the most votes earning a prize. Actually, all students will be winners, for when the competition is concluded, they can take their work home and proudly display it on the wall of their room. The greatest reward is yours—you have met a trying challenge head-on. ▲

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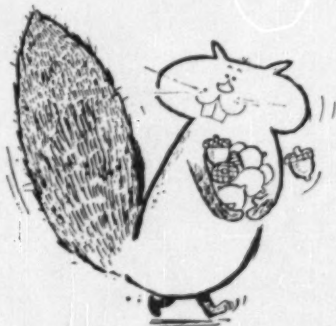
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the creative art magazine

THIS ISSUE'S COVER

Fanciful shapes emerge under the prodding fingers of Dorothy Harkins. Using sheets of beeswax, and ordinary candles, this talented Cleveland artist has opened up a delightful vista for creative craftsmen with her portraits in wax. The story of how she works begins on page 152 of this issue. Color plates courtesy of American Crayon Company. ▲



VOLUME 62, No. 4

MARCH-APRIL/1961

g. alan turner, editor

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Contributing Editors

Art Education: Edwin Ziegfeld, Alfred Howell, Ray Faulkner, Marion Miller, Jane Welling.	
Techniques: Dong Kingman, Matlack Price, Alfred Pelikan, Henry Gasser, Reynold Weidenaar.	
Crafts: Dorothy Liebes, Sam Kramer, Victoria Betts, Edward Winter, Mary Diller, Michael Engel, L.L.D.	
Design: Otto Karl Bach, Clara M. Cioban, Donna Stoddard	

Business Staff

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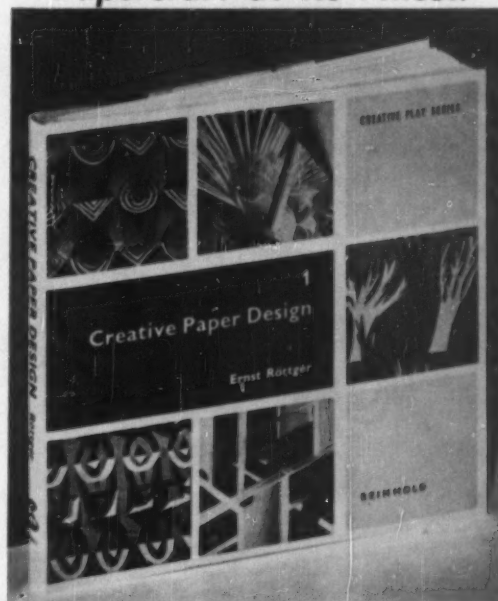
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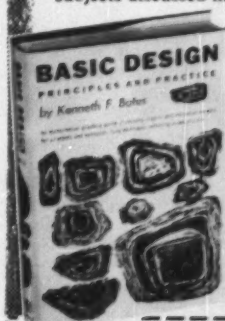
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Using a sheet of construction paper, cover its surface with variously colored areas of wax crayon. Their placement should be predetermined with a small sketch, depending on the subject matter of your art work. Next, polish the crayon strokes with a paper towel or tissue. (This will

minimize crawling of the liquid color to be added.) Now, mix up some powder tempera and liquid starch to a creamy consistency. This will now be applied over the crayon with your fingers. If it crawls, add more tempera to the mixture. When the mixture has dried, you can start scraping away your design through the tempera. Work carefully, uncovering the wax crayon colors below. Experiment with various scraping tools to achieve interesting textures. Try wire staples, orange sticks, razor blades, stencil knives, even Brillo scouring pads. If desired, add emphasis with more wax crayon lines in the conventional manner. When the art is completed, blow on fixatif to insure permanence. ▲

Sgraffito technique, as explored by David Velliquette at Toledo, Ohio's Central Catholic High School.



Art in the hands of the enterprising teacher becomes a magic ticket to adventure. Materials needn't be exotic; there are endless hours of fascination locked up in simple vehicles like crayon, chalk, tempera and watercolor. Combined with other low cost or no cost oddments, these basics will serve to delight young artists and craftsmen. On the following pages you will find a fine assortment of ideas, each of which may provide the touchstone to literally hundreds of other explorations.

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Draw or trace a motif onto a sheet of tissue or overlay paper. Break the design into segments with bold black lines that simulate leading. Color the design with crayons, pencils, watercolor—anything to achieve the desired visual effect. This color is simply your testing guide. As soon as the overall motif is satisfactory, turn the tracing paper over (or rub soft lead pencil thoroughly over the

ART for PLEASURE





Youngsters love the brilliance of wet chalk painting

back, if your design is not to be reversed during transfer.) Now, using a harder pencil, trace your design onto a sheet of drawing paper. Make outlines only. Indicate black leading strips which divide the art into segments. You are now ready to color. First, dip a cotton wad into mineral oil or cooking oil and thoroughly swab the entire paper sheet. This will intensify the wax crayon color when you apply it, and also make the paper translucent.

Refer to your tissue guide and repeat the colors shown in their correct segments. Using big wax crayons for rapid coverage (i.e., *Kindograph* or *Kantroll* brands are good.)

Using the broad side of bits of crayon will achieve a rough effect. Dipping the point into mineral oil and applying a second coat over this first will create a pure, overall solid hue. For deeper hues, turn the paper over and repeat the procedure on the back. If sgraffito effect is desired, scrape across the wax with a knife blade. Let the stained glass paper dry out overnight, then brush or spray on clear lacquer to insure permanency. Mount the design against a window, trimming it to fit the desired area, and when light filters through the pane—stained glass!

Wax crayon stencils

Why not preserve a child's art permanently by using it as the basis for a silk screen print onto fabrics? You can duplicate the art as a motif for table linens, kerchiefs and framed fabric prints. Here's how:

Have the youngster draw directly onto a sheet of *E-Z Cut* stencil paper. They may use colored crayons for more spontaneity and pleasure, but the colors will have no direct effect as such. They simply serve to create a wax resist through which textile colors will not pass. Then mount the drawing on a stencil screen with masking tape and sponge

or squeeze textile color across it, transferring the design onto your tautly stretched fabric. Whatever area is colored with crayon will be transferred as a white (i.e., negative) motif. If desired, these can later be hand-colored with textile colors applied with a brush. And the original drawing is not doomed! Simply wash out all textile color from the stencil paper under the tap of your sink, dry the stencil paper and place a heavy sheet of white paper behind this translucent material. Now, frame the art under glass and you've an original to treasure. What's more, you've produced a handsome set of party napkins, matching tablecloth, curtains—whatever your heart desires.

Wax crayon art on wood

Draw with crayons on a plain, sanded wooden box, brush on clear lacquer and you've a gift box, decorated utility container for holding pins, buttons, pencils, cigarettes. Or, melt a handful of crayon scraps (of the same color) in a pan held over the radiator or in the oven, until they are colored liquid wax. Then paint with the fluid or drip it onto your wooden container for a freehand design. Combine this encaustic technique with sgraffito for more unusual effects. Anyone can enjoy the handcraft; small fry will love making their own hand-decorated pencil boxes, banks, lollipop containers and plaques.

Sandpaper prints

Take a large sheet of fine or medium sandpaper and draw directly onto it with wax crayons. When you rub a warm iron swiftly over the surface, an unusual encaustic print is the result. Frame it and hang.

Decorating ceramics with crayon

Take a plain, unhappy flower pot or other ceramic piece and drip or brush melted crayon over it. If you apply different layers of melted color, as soon as they dry—a matter of seconds—you can scratch through each layer with a pin or blade to reveal the varying colors beneath. An excellent sgraffito-encaustic project to brighten and beautify mundane objects.

New life for crayon shavings

Why discard the chips of wax crayon scraped away during sharpening of the points? Save each color in a pan and then sprinkle them over a sheet of drawing paper. When covered with blank newsprint and ironed, the heat will melt and set them into a fanciful design. The results are unpredictable and that's half the fun.



Wax crayons can be put to scores of unusual arts and craft uses



Crayoned gift wraps

Draw onto sheets of tissue paper, then spatter metallic colors (gold, silver, bronze) across the art. Use the inexpensive tubes of glitter which are already immersed in a solution of glue. Apply dabs of glue to other areas and then sprinkle down sequins, stars, snowflake glitter.

Marbled paper

Want to make your own end papers for a book? Or just a lovely abstraction which can be as readily achieved by a five year old as a professional beatnik? Do this: fill a pan with boiling water, sprinkle in a melange of wax crayon shavings—all colors at once—and wait a few moments for the chips to melt and the water to cool slightly. Then, holding a sheet of plain white paper by its edges, slip it underneath the floating blobs of colored wax and let it slide slowly against them. Move it about a little and withdraw. A delicate tracery of intermixing colors will

photos by Gerry Turner

Watercolor . . . chalk and pastel . . . crayon . . . inexpensive art mediums which can be put to creative purposes regardless of the doer's age. Most of the ideas listed in this article originated with imaginative youngsters at the kindergarten and elementary levels. Photos courtesy Barrington School, Upper Arlington, Ohio and Edison School, Grandview Heights, Ohio.



adhere to its surface. As soon as they dry, you have a fascinating, never-twice-the-same marbled design! You can use it as gift wrap, an abstract worthy of framing or as the background for a poster. You're sure to think of other applications. You might also play around with spattered watercolor or tempera scraped onto the paper from a toothbrush, for a more startling effect.

continued on page 171





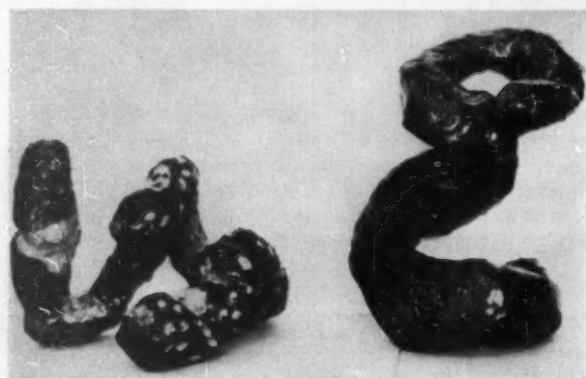
The properly run art room affords working areas which are private islands, within which each student works freely.

OFFBEAT APPROACH TO THREE-DIMENSIONAL DESIGN

by AMALIA DI DONATO

When the time comes to turn a student's thoughts from the flat plane of drawing paper to the more tantalizing problems of designing in the round, sculpture is the obvious answer. In most schools, however, budgetary considerations make the use of clay unfeasible. With thirty or more young people engaged in an activity and with large scale rendering a primary objective, conventional sculpting would require many pounds of the expensive medium. Moreover, clay modeling has long since become familiar from childhood's repeated usage. For these reasons, in our high school art class, we have branched out into exploration of new materials. A number of these are indicated in the accompanying photographs.

Introductory project in 3-D designing utilizes paper mache handled in abstract manner. Decorating of these coiled figures was done with tempera colors. Two students worked together and then joined their work to make a unified construction.

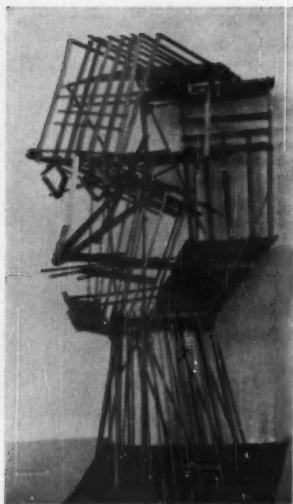


Stick sculpture demands sure control and careful planning. To construct a portrait out of bits of wood, the student must be mature enough to manipulate a non-plastic substance and possess a certain ability for visualization of a slowly emerging picture. We use lumber scraps, dowels, thin bits of balsam, sometimes string. Our fastening is done with glue. These wood sculptures may take the form of an abstracted portrait, an imaginative construction or a near-literal form of architecture. Each student first makes numerous sketches of his subject, boiling it down to its fundamental outline and key points. When this has been done, the actual sculpture commences.

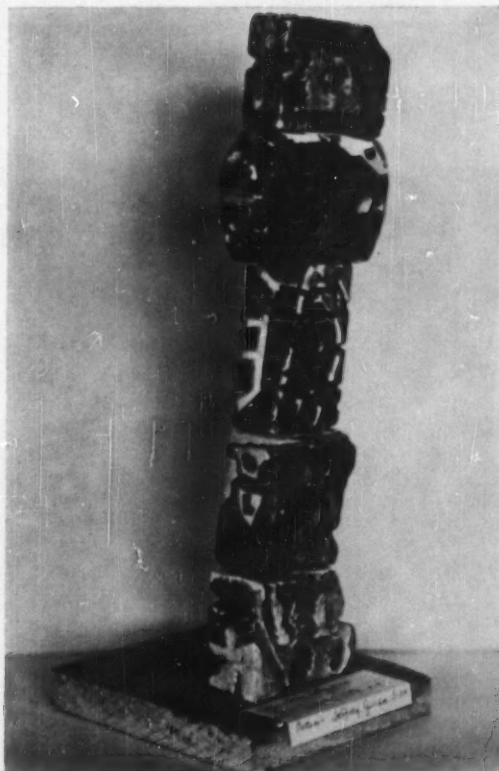
Sometimes, it is advisable to start with a more simple form of introductory project. Paper mache sculpture serves this purpose. We will twist wire to simple shapes, then wrap paste-soaked strips of newspaper around the skeleton. Finally, we decorate the form with tempera colors. Or we will create a head of the same material, with one student modeling for the other.

Still another approach enjoyed by my students is the making of totem poles. We use blocks of inexpensive laundry soap, carving relief motifs on their surface, and then decorating with tempera. The individual chunks of carved soap are neatly skewered into a sculptural shishkabab upon a dowel glued into a heavy woodblock base. Many fantastic and often bizarre motifs emerge. All these projects add spice to what might otherwise be a rather mundane introduction to three-dimensional design. ▲

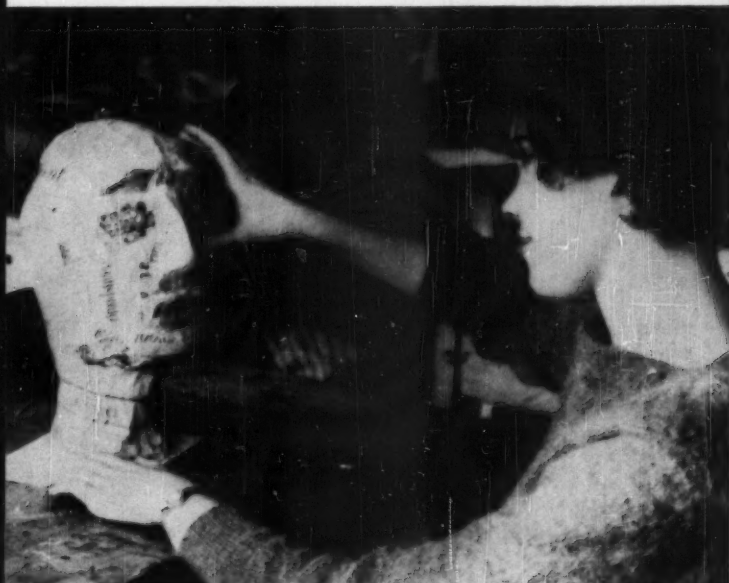
photos by Stephen Saltman



Offbeat portrait of fellow student was rendered by Mark Rugoff with sticks and glue. Thin dowels and balsam bits are easy to handle, obtainable at scrap pile of lumberyard.

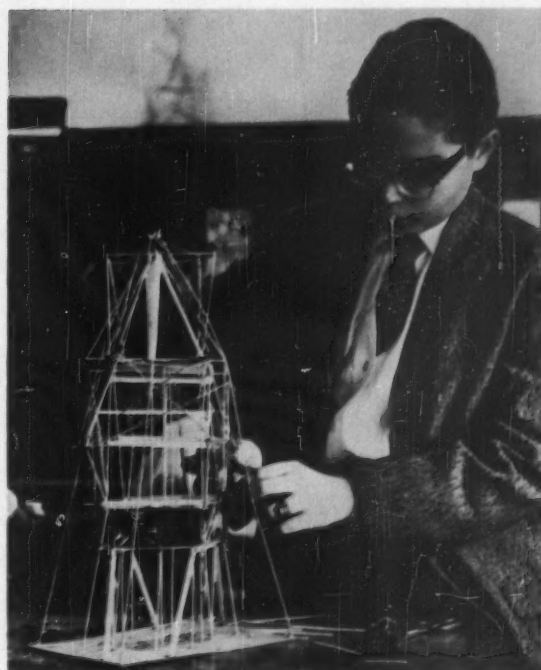


Totem pole is constructed of carved pieces of laundry soap skewered through dowel set in wood block base. Soap may be decorated with thickened tempera colors or inlaid with pressed-in bits of broken glass, mosaic tiles.



Paper mache head portrait is made over solid mash of newspaper which is then covered with strips of paste-soaked paper. Keeping surface wet, student prods and shapes features with fingertips. Completed work may then be decorated with temperas and shelocked.

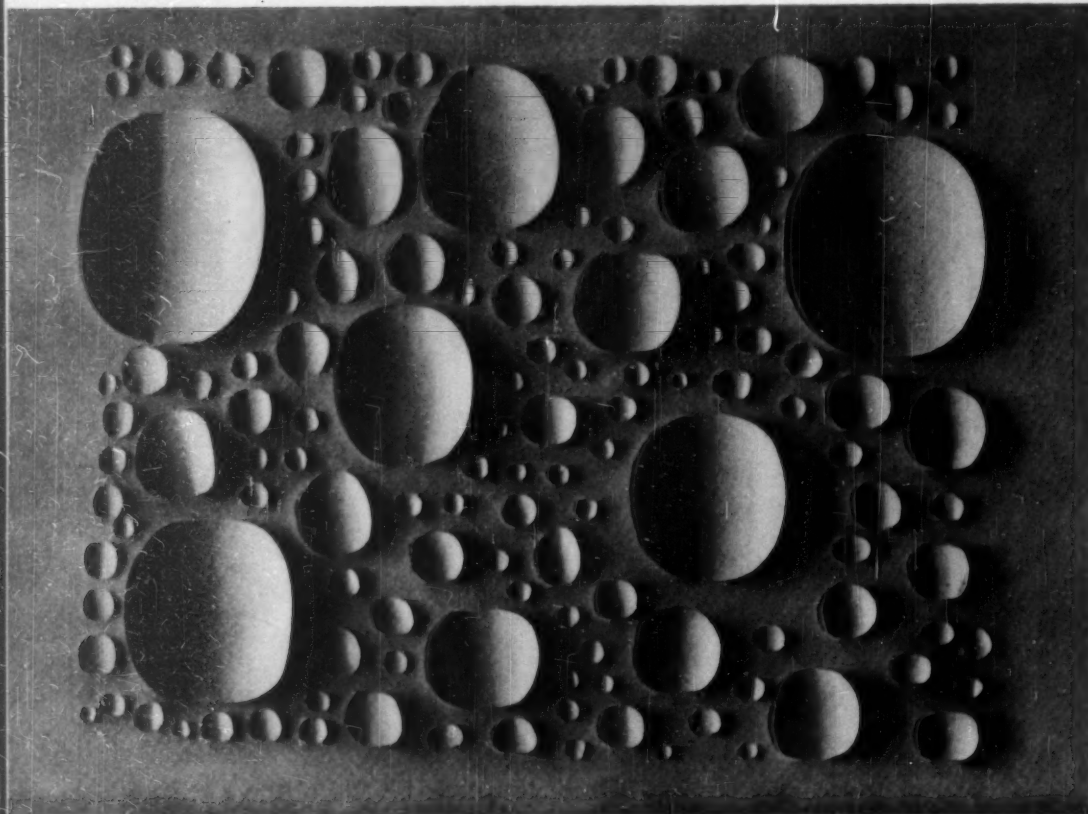
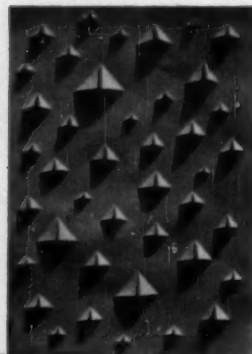
Abstracted architectural form is built with sticks and glue by Mark Rugoff, who also adds yarn and string to emphasize shape.



CUT PAPERCRAFT

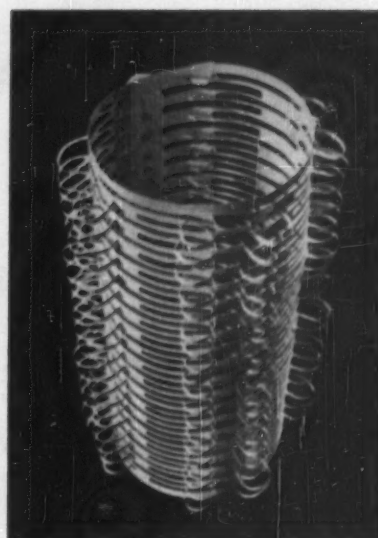
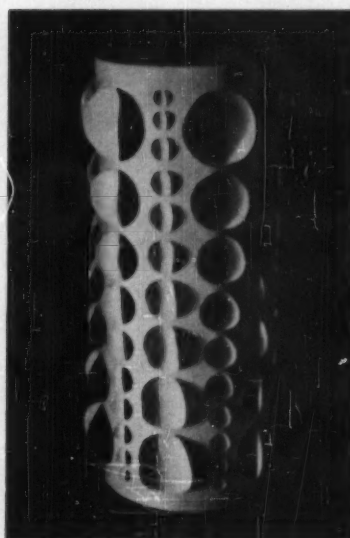
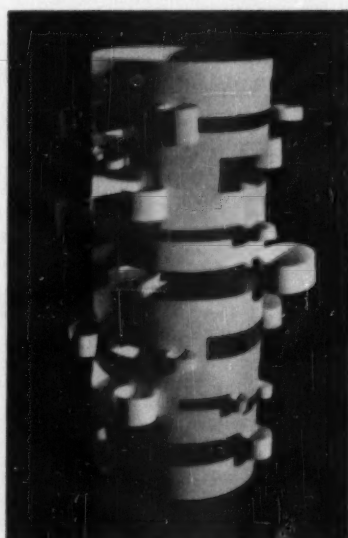
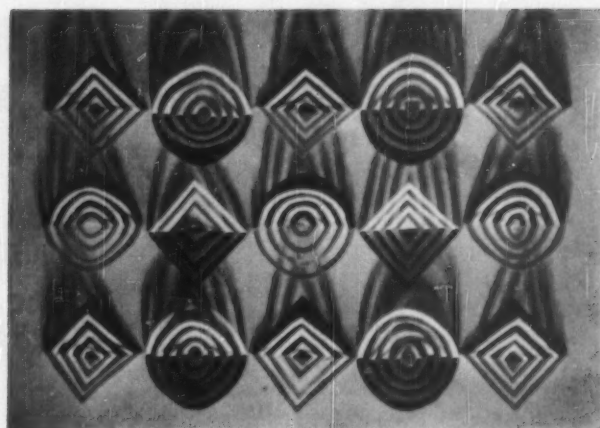
strange and wonderful adventures with cut paper

projects by ERNST ROTTGER

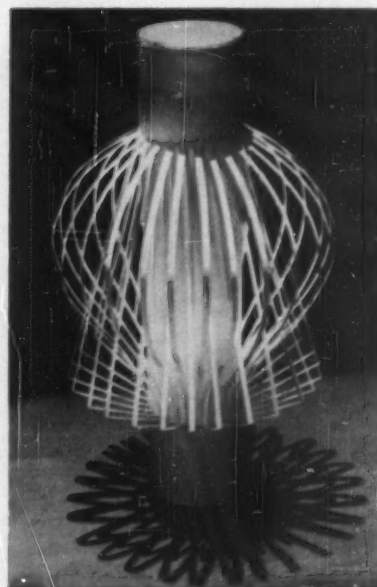


a paper's surface is brought to life by cutting into it. The introduction of a scissors or knife blade through the flat paper is the start of a miracle of designing at work. The moment the paper is freed of its virtual two dimensional prison, it picks up interesting form. When, in addition to cutting, we bend, roll and fold the paper, the design possibilities become infinite. Working with nothing more than our sharp blade and some paste, we create wondrous and often fanciful shapes. A number of these are shown on the following pages. In the newly released book: *"Creative Paper Design"*, the author has produced nearly three hundred exciting examples of this popular art form. The result is a working text that will prove of great interest and value to art teachers, students and professional display artists.

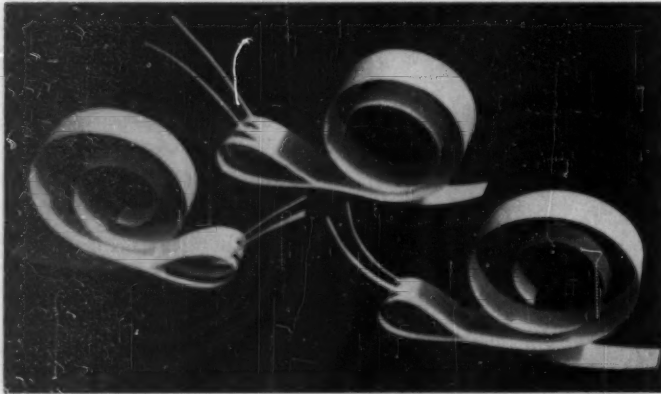
adapted highlights from *"Creative Paper Design"*
by Ernest Rottger (Reinhold Publishing Corp.)



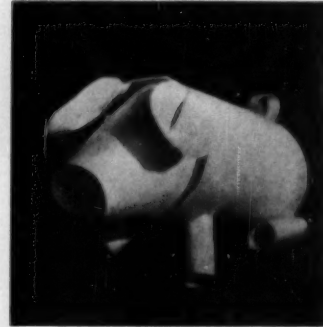
One of the simpler approaches to cut paper design is that of cutting repeat patterns without folding them down. The cut areas are raised slightly to provide a three dimensional quality when viewed. If a light source is placed to one side, the paper surface picks up a strikingly plastic appearance. Nearly cut-through circles of varying sizes (page 148) suddenly become raindrops or beads of water. To another viewer's eye, they may seem like the craters on the moon. Triangular cuts take on the textural feel of a grater or series of pennants standing stiff under an unseen sea breeze. Scissor alternating right angles and semi-circles in straight lines, then place your lighter cut-out paper on top of a sheet of dark paper and up leap bizarre shapes like those shown at top left. (The cut paper is slightly raised to cast shadows.)



Strange Assortment of Animal Shapes



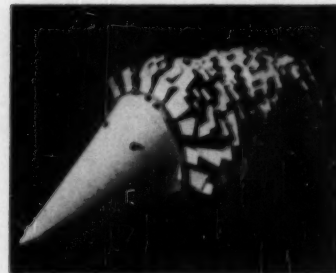
a trio of creeping snails



an enchanted pig

With your scissors you are playing a fascinating game, dealing with abstract shapes, seen in relief. If you wish to go more literal, you might cut out tree shapes, windows and the outlines of buildings, then raise them to stand up from the white paper. Place a light to one side and watch the shadows creep across the landscape! Cut long strips, leaving one end still uncut, then roll them. When they are released, they uncoil slightly to cast eerie shadows. Play around with your light source and the cut paper changes form. Go back to your paper city technique and turn the game over to children. With a little practice, they can create an entire city!

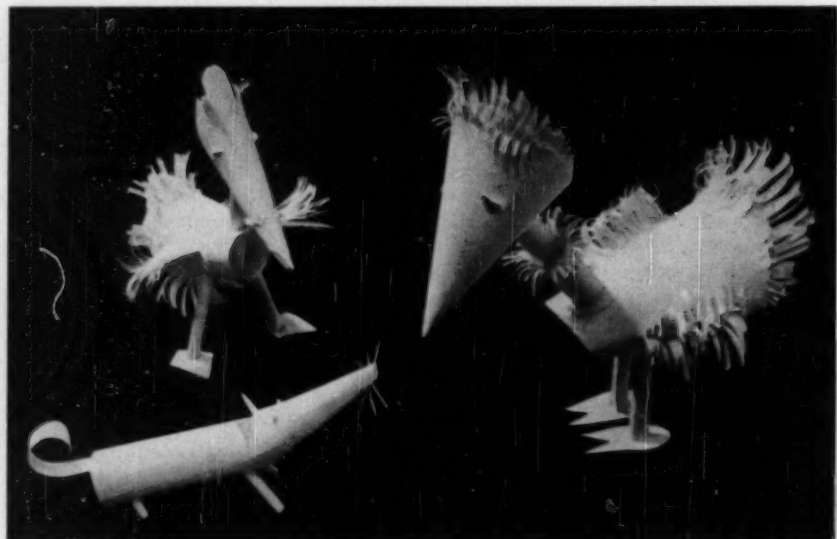
A more advanced technique consists of making a series of cuts along the paper and then weaving strips of paper through the cuts to form a definite pattern. Make your slits in a series of lines; straight across, checkerboard or diagonal. Weave in your paper strips. Take your paper sheet and fold it like an accordion, then insert the long



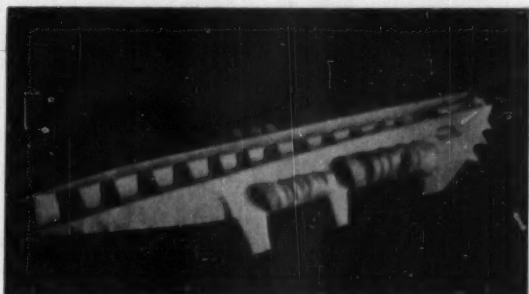
a curious armadillo

continued on page 173

a motley mob of you-name-thems

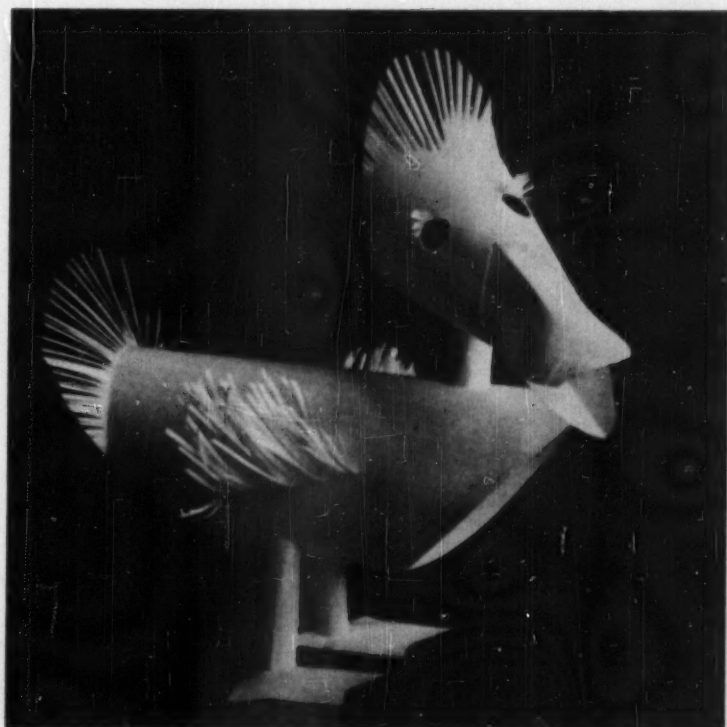


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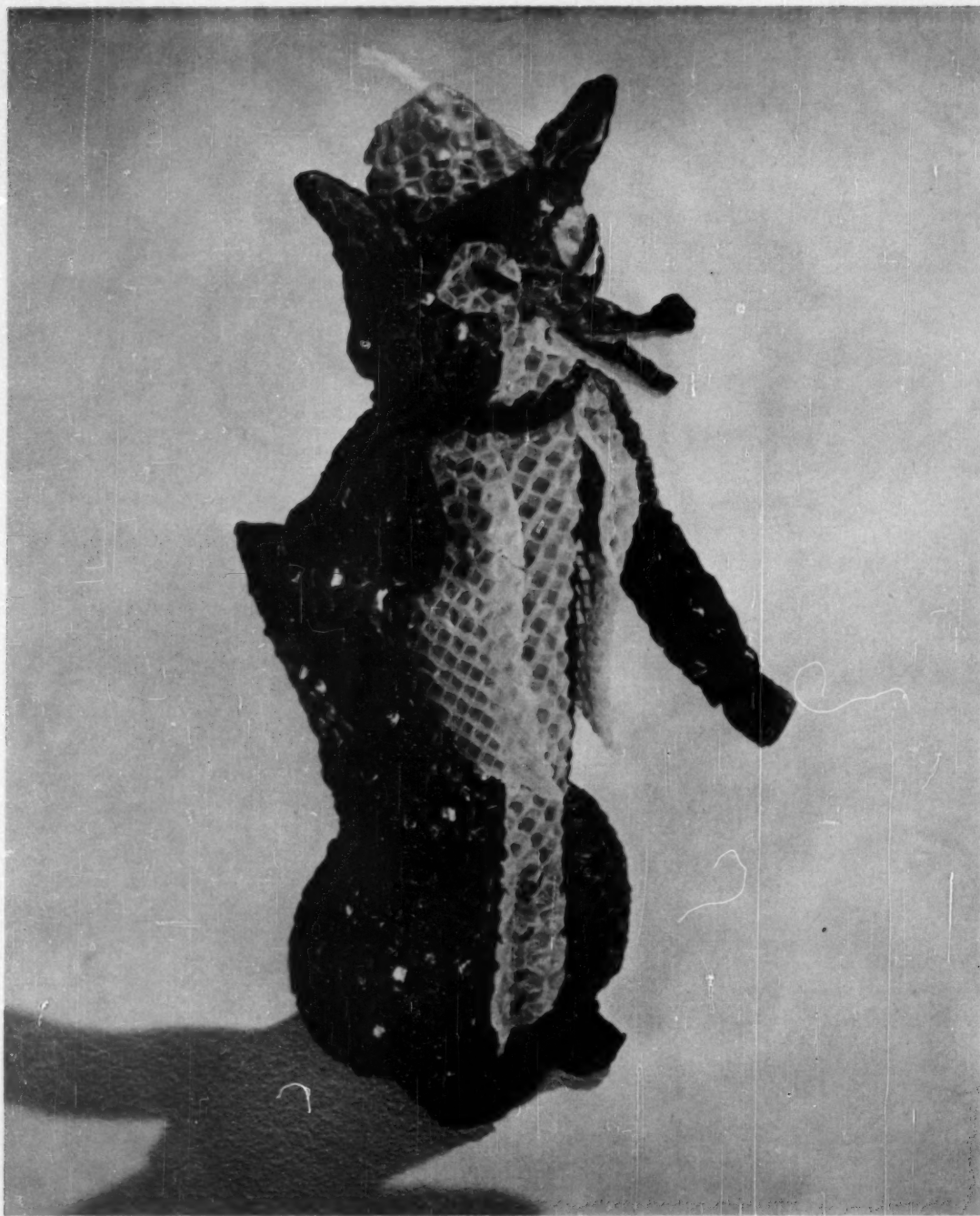
Scissored and folded from a single sheet of paper, the result is this startlingly lifelike grasshopper.

The graceful undulating lines, which emerge from another sheet of paper that has been scissored and scored, become a swan.



Two strange birds, vaguely reminiscent of duck and crane, sport paper tube legs, pasted on plumes and scissored wings.





SCULPTURE WITH CANDLES

project by DOROTHY HARKINS

Candles become an eye-arresting medium for decorative sculpture in the hands of an imaginative artist. Here, and on our front cover, is the work of talented Cleveland art educator, Dorothy Harkins. They'll light the way to many an appealing table centerpiece. Try the technique to brighten your next holiday table.

Miss Harkins delights in recreating characters from beloved fairy tales and childhood favorites. With a few deft touches, she brings to life the King and Queen of Hearts, Little Red Riding Hood, The Big Bad Wolf and a gay galaxy of other characters. Her tools, as always, are simple, her materials inexpensive.

The basic stuff is beeswax, obtainable at any well-stocked craft shop. It comes in sheets measuring approximately

8½"x11" and is available in a large selection of colors. It is rolled about candles which provide the skeleton of each figure. Here's how:

If you are making a tall figure, roll the sheet lengthwise; for shorter figures use the beeswax sheet widthwise. Line up the candle wick to protrude just above the edge of the sheet and roll it over, working about a quarter-inch at a time, then pressing it firmly against the candle. Continue this procedure until you have built up the candle to the desired thickness. If more than one sheet is required, briskly rub your fingers along the joining edges until the heat of your body fuses the sheets together.

Next, form the head. This is done by pinching in the sheet around the top to create a neck. Leave sufficient room above this area for the head itself and the free standing wick (which you may later wish to light). Repeat this to form the waist. The head is built up by adding small pieces of wax and pressing them into the desired shape.

The arms are next. Roll separate pieces of beeswax sheet for each arm. Press the roll flat where it is to join the shoulders and then heat the joint slightly with a match to soften it. Quickly press it in position. If the wax should become brittle and seem in danger of cracking, it may be restored to suppleness by resting it on an electric blanket covered with paper toweling and letting it heat slightly. It may also be held under warm water for a few moments and then be patted dry.

Continue to work up the shoulders with additional bits of wax. Do this to build up the form of the body as well.

Bend the arms at the elbows as you proceed. The hands are constructed by simply pressing the wax sheet flat.

Next step is to dress the model appropriately. For a tall figure, like the King and Queen, the shoulder covering is cut out in the shape of an oversize leaf, with its point coming down past the waist. The narrow part is pressed into the shoulders, creating a padded shoulder or cape. Then press it tightly to the middle of the back. Repeat this procedure for the other shoulder.

The waist covering is a flat piece of wax measuring about a half-inch in width. This is wrapped about the center of the figure and pressed down to hold firmly. Finally, two narrow strips are cut and pressed in position down the front of the figure. If extra stability is desired for dress pieces, you may insert straight pins to help hold the folds and flairs.

Facial features are now added. Cut out small pieces with a sharp knife to make eyes and mouth. The hair is made of a segment of beeswax sheeting measuring approximately a half-inch wide by 2½" long.

The lovely little Bride is constructed similarly. Because she is smaller, a narrower piece of wax is employed for rolling. The skirt is a large piece of beeswax sheet formed into a half bell. It is pressed into the waist. The two edges are joined in back. For the peplum, use two small, oblong pieces of wax. The longest goes in front, around the waist. It extends half way down the skirt. The second, smaller piece goes on top of this to add dimension. Her head, hair, mouth and eyes are now added as earlier de-

continued on page 173

Candlestick sculptures make attractive table centerpieces. They may be coordinated with table linens which repeat the motifs. Decorate your fabrics with Aqua Textile colors applied through EZ-cut stencils via the screen print technique.




THE ART OF JUDICIOUS UNDER-STATEMENT IS A
HALLMARK OF CONTEMPORARY ADVERTISING

WHITE SPACE

Advertising layout is a field of specialization in which the natural inclination to talk a lot for your money is often contradicted. Through the years a simple fact has finally become obvious; getting and holding attention is a split-second matter. In the past decade or two, a term has come into being that has come to be regarded as a hallmark of quality in design. The words: *white space*. White space is best defined as intelligent use of the unprinted page to create emphasis.

Readers today are in a hurry. They scan an entire magazine or newspaper rather than read it. With dozens—perhaps hundreds of advertisements vying for a moment or two of their attention, the reader permits himself to be arrested only by something so unusual that he cannot rush along.


White space does this. In the hands of a skilled art man, it speaks volumes by summing up with a minimum of copy. It tells all in visual shorthand. There are times when massive copy may better sell a product's virtues, but in certain fields the high key, restrained display has become a hallmark. Here are a number of examples culled from the current *39th Annual of Advertising & Editorial Art & Design*, often called the Bible of advertising art. (Farrar, Straus & Cudahy, Publishers.) Each is a classic lesson in emphasis by elimination of all but the key essentials.



Think small.

121 New York University students have gotten into a small VW; a tight fit. The Volkswagen is smartly sized for a family. Mother, father, and three go-getting kids will fit nicely. In company cars, the VW averages close to 50 miles per gallon. You won't do near as well, after all, professional drivers have come to trade secrets. Wonder to know some? Write VW.

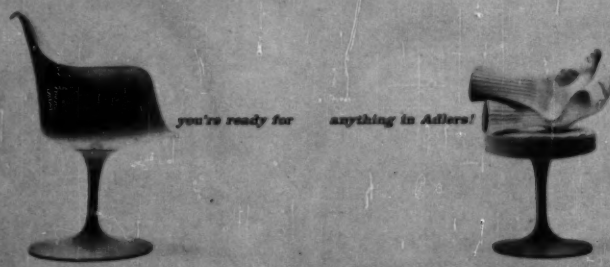
Box #65, Englewood, N. J. Use regular gas and forget about oil between changes. The VW is 4 feet shorter than a conventional car yet has as much leg room up front. While other cars are doomed to roam the crowded streets, you park in tiny places. VW spare parts are inexpensive. A new front fender for an authorized VW dealer is \$21.75.* A cylinder head, \$19.95.* The only thing is, they're seldom needed. A new Volkswagen sedan is \$1,865.* Other than a radio and side view mirror, that includes everything you'll really need. In 1959 about 120,000 Adlers* were thought small and bought VWs. Think about it.



AWARD OF DISTINCTIVE MERIT

Volkswagen advertisement designed by Helmut Krone, photographed by Wingate Paine, for Doyle, Dane, Bernbach Agency.

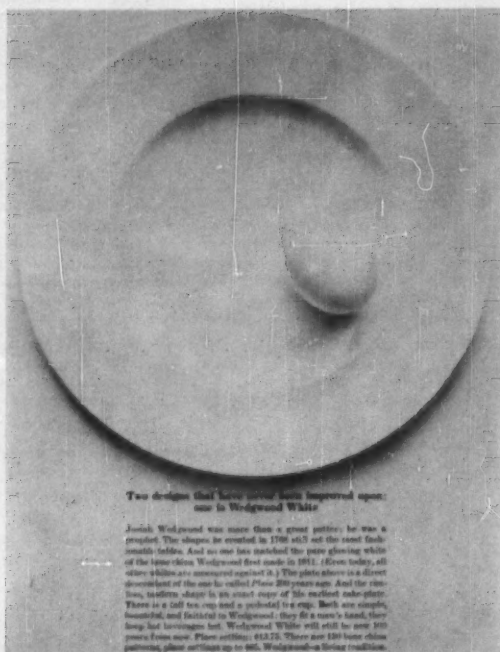
Adler Socks get white space treatment under art direction of Clark Robinson. Photographed by Paul D'Ome for McCann Marschalk Agency.



you're ready for

anything in Adlers!

3



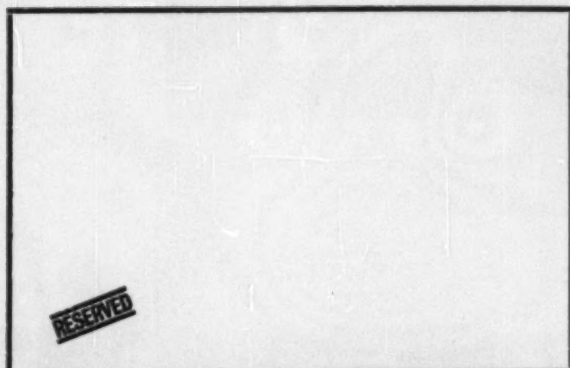
AWARD OF DISTINCTIVE MERIT

3 Wedgwood White dinnerware advertisement designed by Bert Steinhauser. Photographed by Arnold Rosenberg. Doyle, Dane, Bernbach Agency.

Think now—there's someone you love who'd be surprised and overjoyed to find an Olivetti portable under the tree—can't there? So now it's simply a matter of deciding which one—the light, low, lifetime-lasting Letters 22 at \$98, or the Studio 44, the portable that thinks it's a standard, at \$119.50. Each with a handsome case; same extra. If you'd like, we'll send you the name of your nearest dealer. Olivetti Corporation of America, 375 Park Avenue, New York 22, New York.

olivetti

4



On May 10th the I.L.G.W.U. has reserved space in 30 newspapers in 30 cities—start of a nationwide campaign to make women look for the union label in the clothes they buy. The space is a full page tabloid and seven full columns. The audience is 30,871,294. The retailer who wants all his customers to stay his customers will make sure all his women's and children's apparel carries this label.

6

4 Olivetti Corporation advertisement designed by Leo Lionni through Geyer, Morey, Madden & Ballard Agency.

5 Proctor & Gamble's Cheer product ad, created under art direction of Arthur Siller and Frazier Purdy; photographed by Irwin Horowitz, for Young & Rubicam Agency.

6 I.L.G.W.U. brings attention to its union label in this design by George Lois for Doyle, Dane, Bernbach Agency.

5

This tablecloth was washed in blue Cheer®

Wouldn't you like all your cloth this white, this perfect?

Steps in making a LITHOGRAPHIC PRINT



1

1 The lithographic stone is first grained by applying an abrasive paste over it. Then a smaller stone is slid over it in a circular movement until desired grinding is achieved. Surface of larger (printing) stone is then washed and sponged with water to remove all abrasive.

2 When stone dries, drawing is made on its surface with lithographic pencil or grease crayon. Stone's texture can make printed work look like pencil, crayon, pen or brush drawing. With drawing done, surface is brushed over with gum arabic and water, then the "etch" is brushed on (i.e., gum arabic and nitric acid) and dries overnight. Prior to printing, crayon drawing is removed with turpentine.

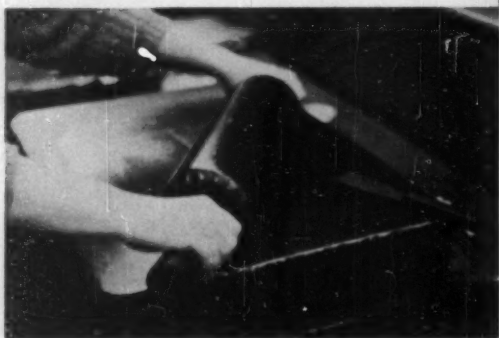
3 Again sponged with water, stone may now be inked. Only greasy parts of stone's surface (the drawing image which has been retained) will take ink; rest of damp surface will repel ink. Proofs are now pulled by rolling on ink of desired color.

4 Stone is put on printing press and proof pulled on newsprint. When any corrections are finished, quality paper is used for final prints.

5 The completed lithograph is lifted from the stone.



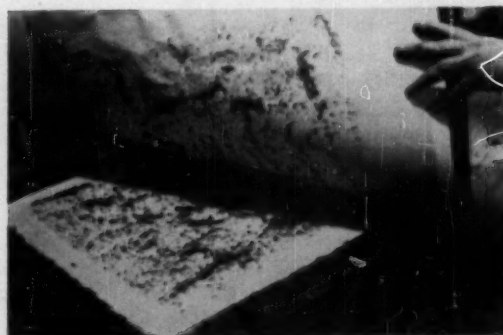
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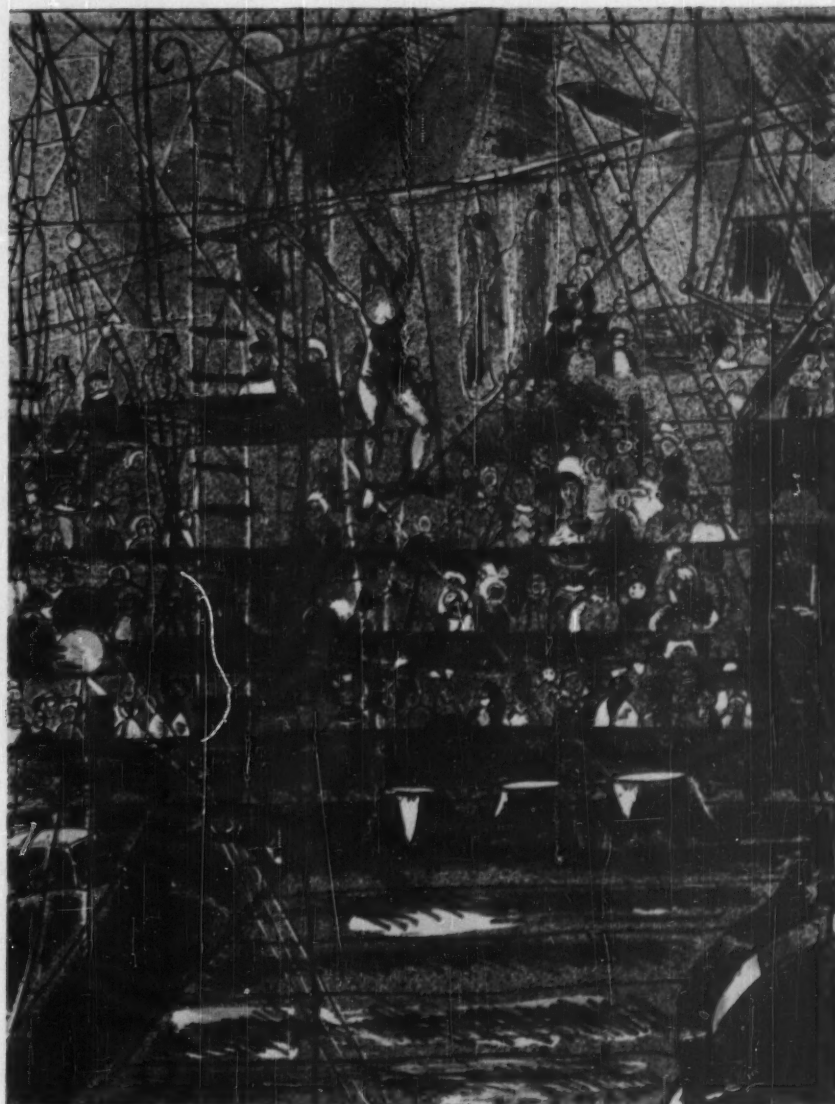
4



5

"THE CIRCUS PERFORMANCE"
Lithograph by Irene Aronson

This print went through the press five times, each color requiring a different stone and drawing. It was rendered with crayon and pen and brush drawn on the stone. Background was spattered. Colors used were green, red, dark gray plus yellow tint and yellow mixed with white.



THE ART OF LITHOGRAPHY

by IRENE ARONSON

Around the closing days of the Eighteenth Century, Alois Senefelder, a German actor, playwright and musician, accidentally discovered lithography. This process is based on the fact that grease repels water, but grease sticks to more grease. While trying to print his own manuscripts and experimenting with various ways and means, Senefelder made his discovery with a crayon and a stone.

It was a limestone slab and there is the legendary tale that Senefelder stumbled on his new process while writing down a laundry list on the stone top.

He never made much money from his invention, which toward the end of the 19th century, and later, in the 20th century, inspired artists to produce some of the finest masterpieces the print-world has ever seen.

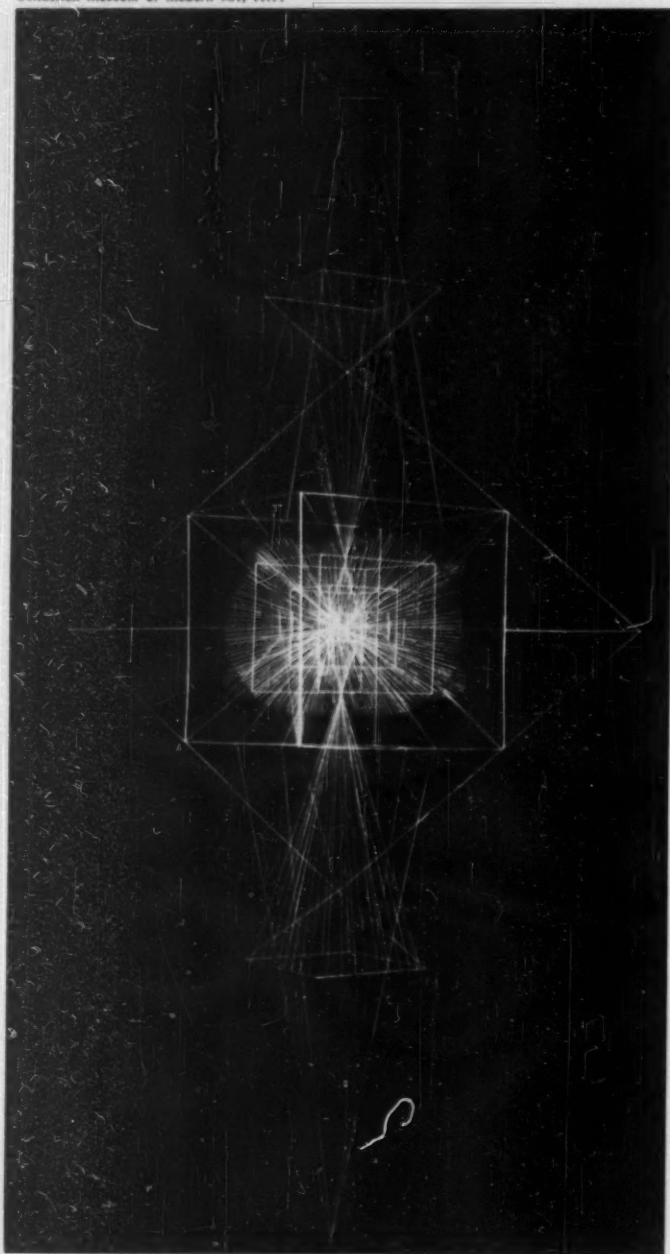
One of the first well-known German artists to make use of the new method was Adolf von Menzel. He was a master draughtsman to begin with and his work found rich expression in the new medium. He brought out some famous sequences

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SCULPTING WITH WIRE AND FLAME

unheard-of materials are the challenging tools with which Richard Lippold creates

Collection Museum of Modern Art, N.Y.



FULL MOON: constructed by Richard Lippold with brass rods, nickel-chromium and stainless steel wire. Stands ten feet in height.

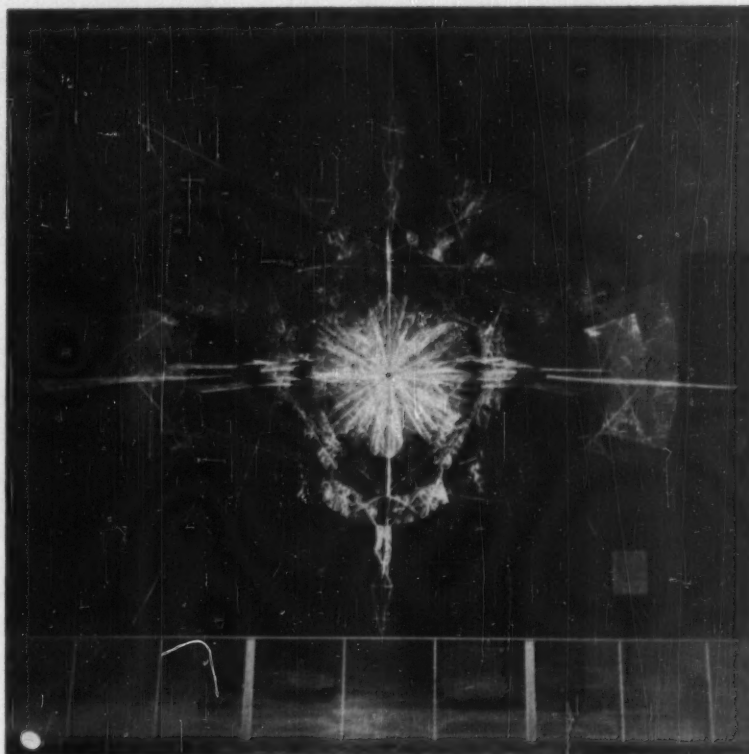
Art critics and onlookers at the Museum of Modern Art in Paris were in for something of a shock, one morning, nearly five years ago. A new show was being set up to display current American art and one of the participants was bending into a huge packing crate. Blinking amiably behind his eye glasses, the pale young artist lifted out a formidable roll of tightly wound wire and a black box. On the spot, he uncoiled the wire and started to construct his unheralded masterwork before the pop-eyed viewers.

This was the first showing of Richard Lippold's wire sculpture called: "*Full Moon*." It is now internationally famous and may be seen at New York's Museum of Modern Art. Working with the deft precision of a surgeon sewing up a Christmas turkey, Lippold put his construction together in short order and won the plaudits of the crowd. Critics labeled his work the only really original idea to meet their eyes in the field of contemporary sculpture. It wasn't long before the Metropolitan Museum of Art heard about the young man with the deft touch and commissioned him to build for them another king-sized sculpture. This became: "*The Sun*", a lovely, fragile giant of golden rays and trembling wires. Unlike his Parisian adventure, the on-the-spot building of "*Sun*" took Lippold more than two weeks of intricate endeavor. Over ten thousand feet of gold wire had to be twisted, joined and welded before he was done. The

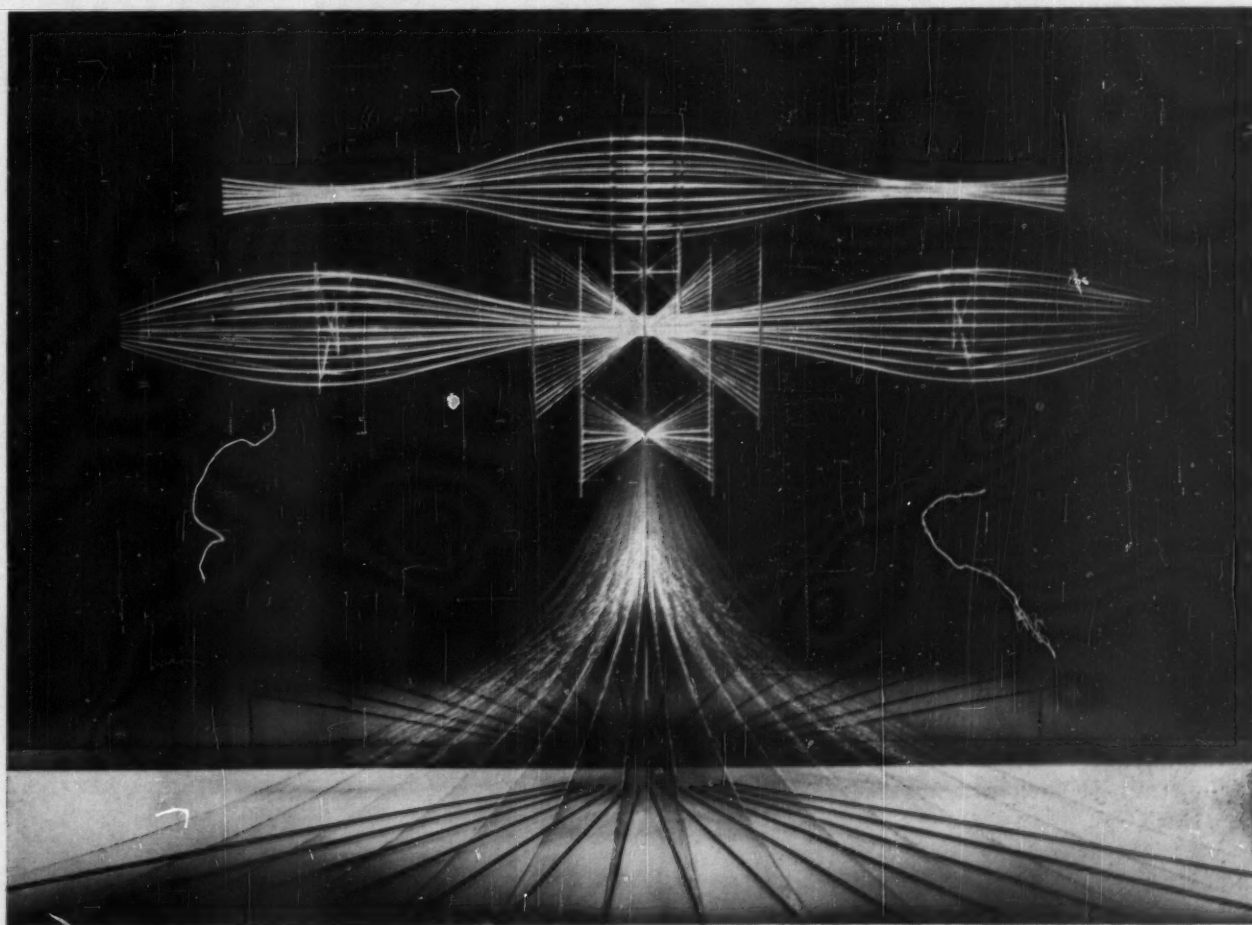
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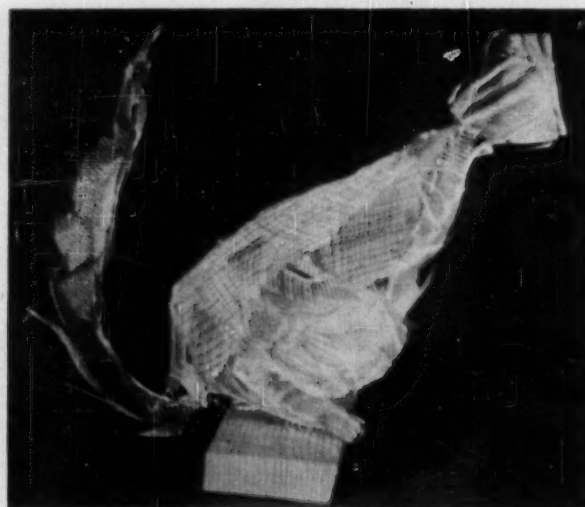
THE SUN is a sculptural construction by Lippold made of gold wire and measures 22 feet long x 11 feet high x 5½ feet deep. The motif suggests the solar nucleus surrounded by a corona and prominences. Three years in the making, it is made of over two miles of delicate gold wire. About 14,000 hand-welded joints are involved.

THE ELEMENTS is most recent Lippold sculpture and is in reception area of J. Walter Thompson, Inc.'s New York office. Theme suggests relationship of water, earth and air to present theories of matter and space. Mounted on a dark glass panel, it covers a sixteen foot wall.



Metropolitan Museum of Art





Squirrel seen at left begins as wire skeleton, about which pieces of wire mesh screening are twisted to build up shape.

WIRE and SCREEN SCULPTURE

coat hangers and wire mesh scraps become a lively menagerie



Yak has body hair of scissored crinoline stripping.

project by ROSE CAMBRIA

Art Instructor: Emerson High School, New Jersey

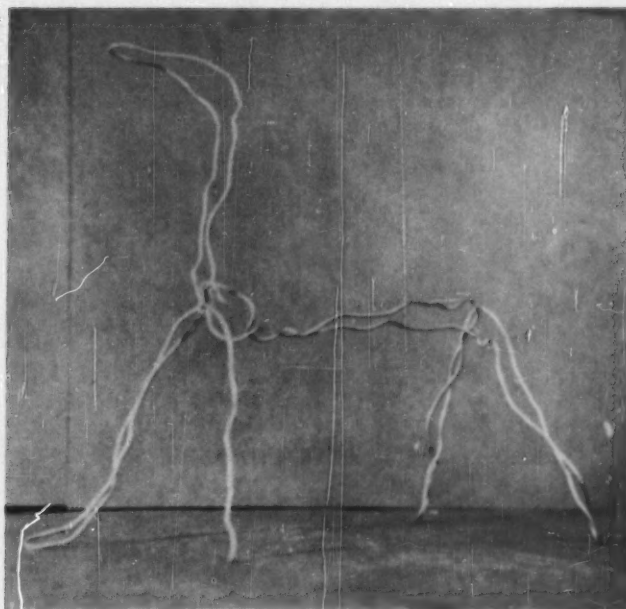
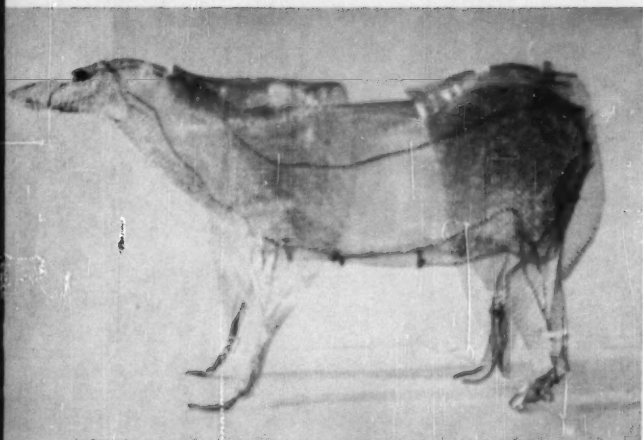
COAT hangers provide the skeletal structures about which a high school class recently constructed the unusual creatures shown on these pages. The hangers are bent and twisted into the rough shape of the animal desired, then covered with wire mesh and plaster. The project requires no tools except the artist's bare hands and perhaps a pair of shears or paint brush if decorative effects are desired.

The supplies used were mostly scrap, culled from shop class waste bins. Average investment was around 35c per animal, this sum going for wire screen. A few students found the coat hangers too brittle as armatures and switched to the use of softer 16 gauge copper wire, most familiar as the winding material for armatures.

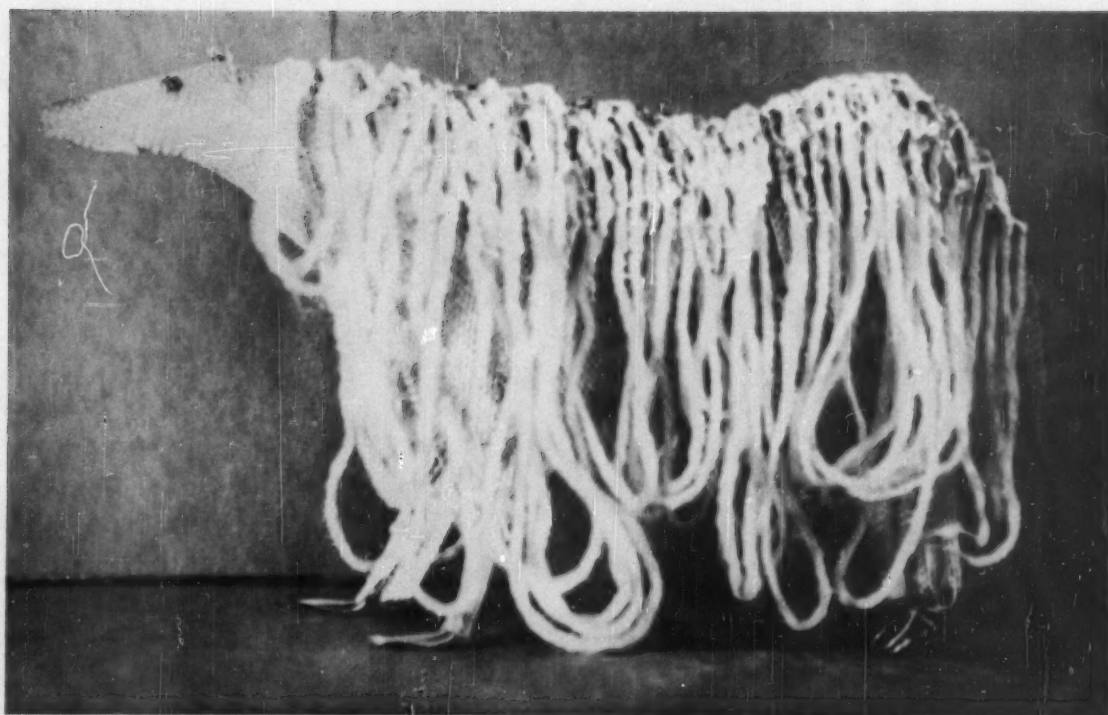
Once the skeleton shape has been formed by bending and twisting the wire, pieces of wire screen are cut with shears to build up the form. It is a good idea to first experiment with construction paper before cutting the screening. The body, neck and head can often be cut from a large piece and bent about the armature. Other pieces are then wrapped or coiled to make limbs and tail. If paper pieces are employed for experimentation, those which are finally settled upon may be laid flat and used as patterns around which to cut the screen. In most cases, the wire mesh screening will be used uncovered as the body, and for contrast it is possible to add areas of heavy crinoline. Where a more solid appearance is desired, plaster of paris can be brushed on over the mesh and allowed to harden.

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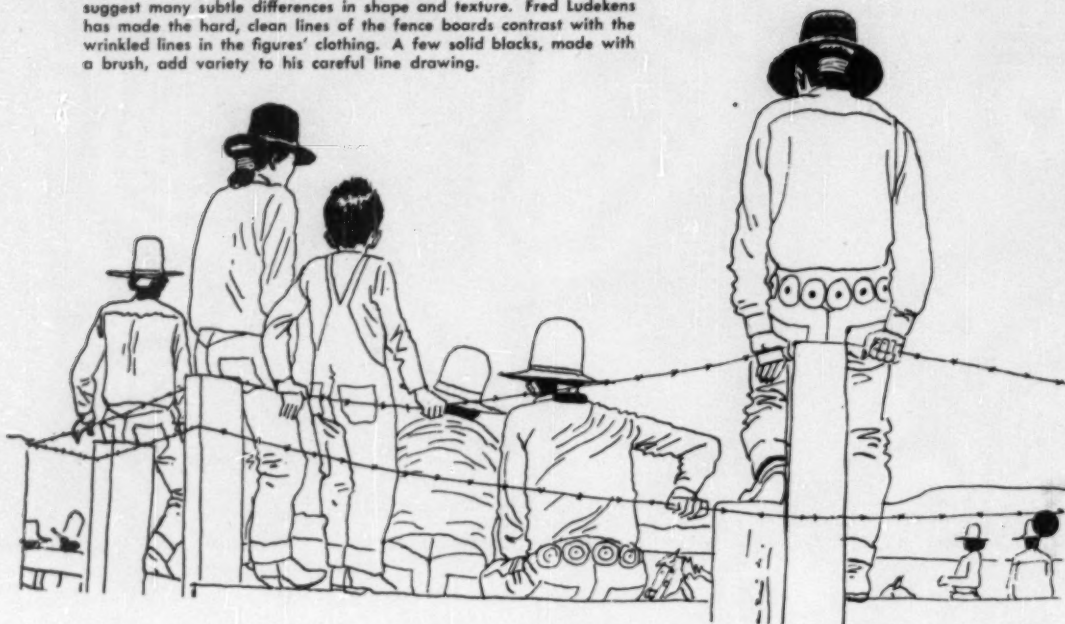
Beginning for each animal is a twisted skeleton, made from a coat hanger or 16 gauge copper wire. Shaping is done by hand.



Shaggy dog, seen above in skeleton, is covered with coat of knitting yarn. Pieces of screen which provide built up form are attached together with staples or by sewing through mesh openings. Completed dog is below.



In this drawing we see how a few simple pen lines can be used to suggest many subtle differences in shape and texture. Fred Ludokens has made the hard, clean lines of the fence boards contrast with the wrinkled lines in the figures' clothing. A few solid blacks, made with a brush, add variety to his careful line drawing.



DRAWING WITH INK

PEN or brush and ink drawing has been a favorite with many of the greatest artists in history because of its simple, graphic qualities and many satisfactions. You, too, will find it a direct and fascinating technique.

Most of us enjoy doing a lot with very little. This is certainly what you can learn to do with your pen or brush and ink. The drawings that you make with these tools are called "line drawings." In a line drawing you can make only solid black lines or areas on your white paper—you cannot make grays. But you can make a good substitute for gray tones by putting many fine lines close together to create the *effect* of gray. The closer your lines, the less white paper shows through between them and the darker your gray looks.



Both pens and brushes are used in ink drawing. The brushes here are pointed sable water-color brushes, Numbers 3 and 5. For your pen lines you need a crowquill pen with its special holder (the smaller one here), coarse, medium, and fine pens, and a holder for them. The ink should be black, opaque, and waterproof. Three erasers — Artgum, kneaded eraser, and sand eraser—will do your cleanup jobs, and the single-edge razor is useful for removing splattered dots of ink and keeping a slanted point on your sand eraser. A lintless cloth comes in handy as a penwiper, and either the thumbtacks or masking tape will fasten your paper securely to your drawing board.

Another satisfaction you'll have will be from the great variety of lines you can create with the pen or brush. As you become more skilled you can draw a smooth line that will look like the soft outline of a girl's cheek, or a rough line that suggests the rugged bark of a tree.

You will also find the same pleasure others do in the actual feel of the pen or the brush. As you move it across the paper you ease the pressure to make a thin line, you press to make it thicker and you vary the movement slightly to give variety and character to your line.

Your skill with the pen or brush will be very important because it is apt to earn you much of your income, especially in the early years of your career. It is with this type of art work that most artists start. Line drawings are in great demand, since they can be reproduced more easily and cheaply than any other kind. They print well on all sorts of paper, especially soft newsprint. They can be reproduced and used successfully where pencil, wash or opaque drawings cannot. The medium is a favorite one for newspaper and all other forms of advertising and printing where economy is important. But it lends itself equally well to making exquisite line drawings for fine books, the highest grades of magazines and deluxe advertising.

There is almost no limit to the number of uses for line

material reproduced courtesy
Famous Artists Schools, Inc., Westport, Conn.
and is an adaptation of highlights from the newly
revised Famous Artists Course

drawings, so it will pay you to develop your skill with this medium. Throughout your career, your ability as a line artist will be one of your most valuable assets.

Your materials

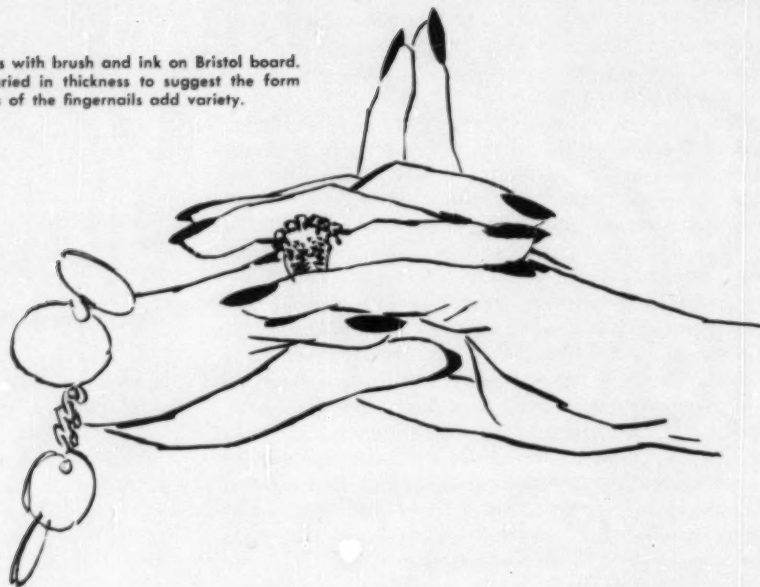
For this lesson you will need three pen points—coarse, medium and flexible—a penholder for them, and a crow-quill pen and holder and brushes. You will also need a bottle of black waterproof drawing ink and a penwiper, which you should use often—any small piece of soft cotton cloth that is free of lint will do. Your paper should have a fairly smooth surface and be hard enough so that your pen will not pick up fibers when you draw. Kid or plate-finish Bristol board or illustration board is good for your finished work. For practice, have plenty of good-quality bond type-

This is a detail of an illustration by Albert Dorne. It is reproduced actual size to show you the many different kinds of lines he draw with a Number 4 brush. Study the lines in terms of their direction, distance from one another, and thickness—particularly the way some of them vary from thin to thick. Note, also, how few lines the artist drew in the face of the girl on the right. Only in the large head of the man did he use many lines. Beginning artists often put too many lines in small drawings of heads. Keep yours simple.

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Jon Whitcomb drew these hands with brush and ink on Bristol board. Notice how the outlines are varied in thickness to suggest the form of the hands. The strong blacks of the fingernails add variety.



writer paper or ledger paper. Accidents will happen occasionally, so have a few blotters handy.

Pens

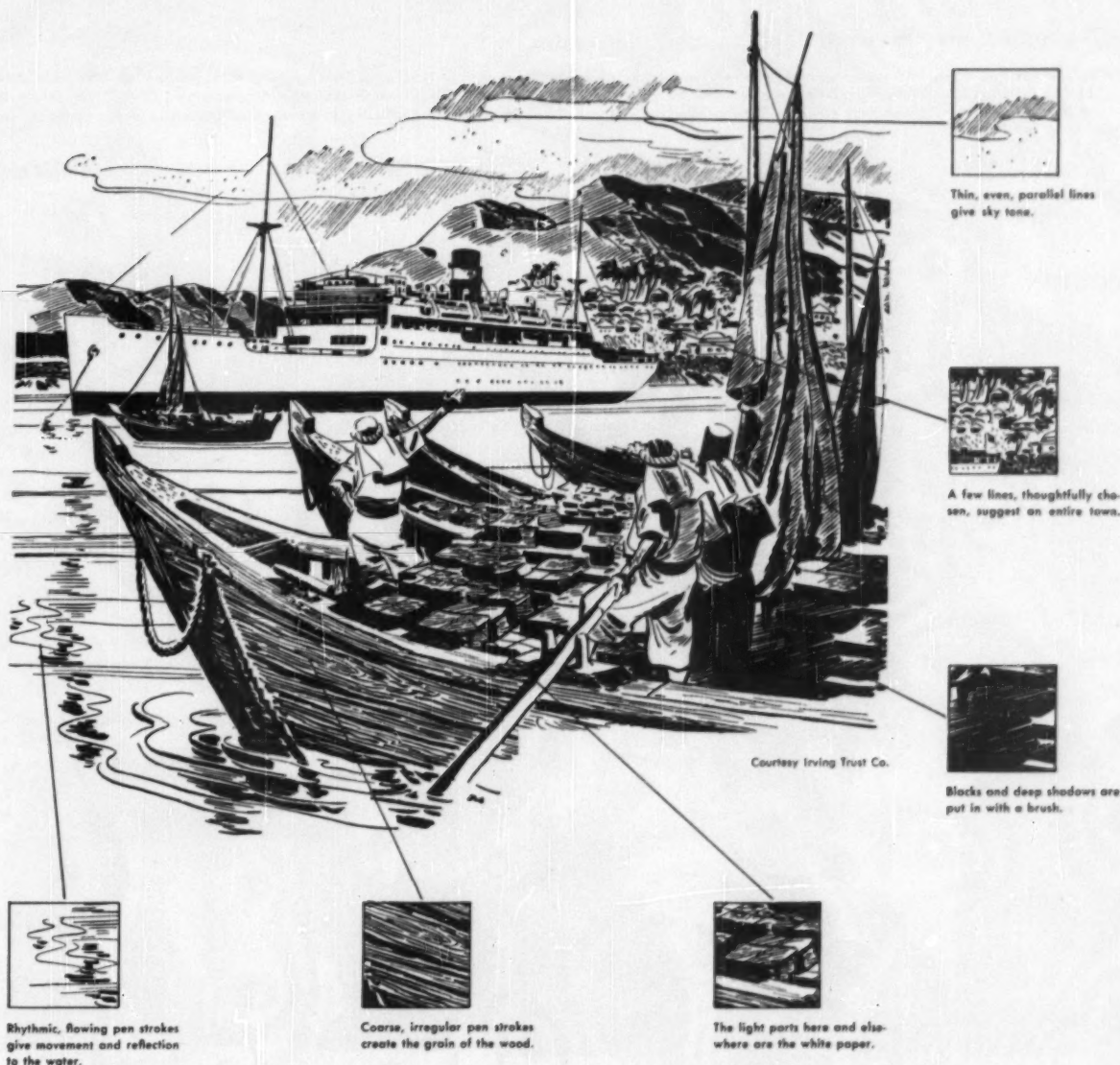
Pens are classified according to the thickness of line they make. A "coarse" pen makes a broad, thick line. A "medium" pen makes a somewhat thinner line. The word "fine," as applied to a pen, does not refer to its quality; it means that this point makes a thin line. Some pens are "flexible," others are "stiff." If a pen is flexible, a little pressure on it

will enable you to make a much broader line. A crowquill pen is especially good for drawing very fine lines.

There are many manufacturers who make excellent pen-points. The same type of point is given a different number by each manufacturer, so a chart has been included to help you select pen points similar to the ones mentioned in the lesson. For example, a Gillott 404 is approximately the same point as a Hunt 56, or an Esterbrook 358. It makes very little difference which brand you use: it is what you do with it that counts.



Here are two pen drawings of the same subject—each one different, yet each one effective in its technique. These pictures prove there is no one best way to use the pen. Depending on the subject of your picture, its mood, and its purpose, you should use different techniques. Don't consciously attempt to create a personal style of pen handling. Just as your own style of handwriting developed naturally from much writing, so your own style with the pen will develop from making many line drawings in different techniques. If you simply do your best to make good drawings and good pictures, it should not be long before you find yourself developing a style of your own quite unconsciously.



Use a penholder that feels comfortable. Most artists use one that is about as thick as or a little thicker than a pencil. The crowquill pen is quite small and has a special holder.

Comparative chart of pen points
(Approximate relationship)

	Gillott	Esterbrook	Hunt
Coarse	404	358	56
Medium	303	357	22
Fine	170	356	99
Very fine and flexible	290	354	100

Ink

Always use a *black* ink that is opaque—that is, thick or dark enough to hide or cover the paper completely. If the ink is too thin it will look gray and will not reproduce properly. Blue ink will not reproduce at all. Waterproof ink will not run when you paint a wash over it. The ink can be applied with a pen or brush just as it comes from the bottle. Always keep your ink bottle well corked when not in use or the ink will thicken and not flow easily. If it becomes too thick, thin it with a few drops of water.

Many textures with a single tool

This picture, drawn by Albert Dorne for a newspaper advertisement, shows some of the many effects you can obtain with pen and ink.

First of all, notice the wide variety of lines made by the pen, and how the artist has suggested the textures of different things with them. On the boat in front, irregular lines make the texture of rough wood, while clean, hard lines and white space suggest the sleek sides of the modern vessel. For the sky and hills the artist has used parallel straight lines—but on each of these subjects he has made them a bit different.

Dorne has used his lines most economically—he does not draw everything in full detail. With just a few lines he clearly says “clouds”—with a few more, “water.” A few well-placed lines beyond the big ship are enough to make us see an entire town. Throughout his picture he suggests a lot with a little.

Examine the patches lifted out of this picture and see how the pen strokes (and the white of the paper) are used. The drawing and the patches are reproduced in their actual size.

A well-planned line drawing

Here Fred Ludekens has taken a large, complex scene and reduced its many features to their few, essential elements. Observe how he has used different kinds of pen lines to suggest the varied forms and textures of (1) clouds, (2) sagebrush, (3) the man's clothing, (4) the horse's coat, (5) a distant forest of firs, and (6) the dead tree. Portions of these have been lifted out for you to study. Notice the way the artist has used the white of the paper—it makes up three-quarters of his picture!



Delicate, irregular lines suggest the underpart of the light, fleecy clouds.



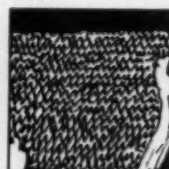
Short, curving strokes suggest the detail and texture of the sagebrush.



Irregular pen lines, unevenly spaced, represent the soft texture of the man's trousers.



The lines suggesting the texture of the horse's coat follow the contour of its body.



Short up-and-down strokes represent the tops of the more distant pines.



Shadows are solid blacks put in with a brush.

Using the pen

Before you use a new pen, dampen it a bit with your lips, then wipe it dry. This will help the point hold the ink and make it flow better from the pen. With a little use a new pen is soon "broken in."

Don't dip your pen too deeply in the ink or you will pick up too much and it may blot and spoil your drawing. Whenever the ink starts to cake on your pen, clean it with your penwiper. Wash your pen points occasionally. Don't handicap yourself with defective or worn-out pen points—throw them away. New ones are cheap and easy to buy.

To draw with your pen, hold it in your fingers in a natural way—just as you would for writing.

Erasures

Ink lines can be erased with a sand eraser—a hard eraser similar to the kind used by typists. Keep one end cut to a sharp, slanted point so that you can get into small areas. In using the sand eraser, be very careful not to rub too hard or you will ruin the surface of the paper. Where possible, use a gentle circular motion and always dust the grit off your drawing before putting the pen to the paper again. It is easier to erase on the better grades of paper without spoiling the surface.

Instead of erasing, you can paint out unwanted ink lines with opaque white. However, you cannot draw new lines over the opaque white.

When you make a pen and ink drawing, first draw your picture in pencil. Then do your ink drawing right over the lines of your pencil drawing and add textures and tones as needed. When the ink is *thoroughly* dry, use a piece of Artgum to erase over the entire picture. This will remove all pencil lines and dirt without injuring the pen lines and give you a clean, workmanlike line drawing.

Don't be afraid to make mistakes, because you will make many before you master the pen. Practice a lot with pen and ink so you will gain the skill and assurance necessary for this precise but fascinating and rewarding medium.

Drawing with brush and ink

You will enjoy working with your pencil and pen—but not more than you will with your brush, once you discover the wonderful things you can do with it. The brush is so soft and flexible that it answers to the slightest pressure. With it, you can draw any kind of line you want, from the lightest hairline to wide, heavy strokes.

Fine, graceful, flowing lines can be made almost effortlessly with your brush. If your picture calls for large areas of darks, your brush will put them in solidly and effectively. It can make drawings that only an expert can tell from pen drawings. Brush and ink pictures can be reproduced just as easily and economically as pen and ink drawings, too.

By all means, learn to draw with both the pen and the brush. You can use a combination of these tools in the same picture.

Your materials

Brushes come in a great variety of sizes, shapes and materials. The smallest brush is an 000. As the numbers increase, the brushes get bigger and thicker. Numbers 2, 3, 4



This picture by Robert Fawcett shows the fine results that can be obtained with a brush used in a broad, free manner.

and 5 are excellent all-around sizes for line drawings. They hold more ink than the smallest brushes and yet can make a line almost as fine as an 000. (Too fine a line will not reproduce well.)

The best brushes for line drawing are pointed sable watercolor brushes. It pays to buy good ones—you can get better effects with them and they last much longer.

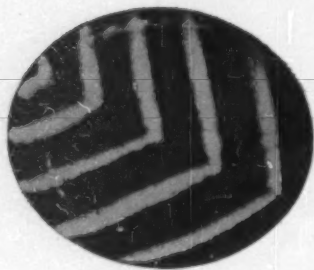
Paper and ink. Papers that will do for pen and ink will do for brush and ink. A paper with a kid or slightly rough finish is preferred. It will hold or take more ink and therefore give you a richer line than a smooth surface. The brush can be used on a softer paper, where the pen would pick up the fibers and create rough lines or make a blot.

Black waterproof drawing ink—the same kind you use with your pen—is ideal for brush work. To make erasures or corrections, use the same materials and techniques we recommend for pen and ink.

Using the brush

Follow the same procedure as with pen and ink. First lightly trace the lines of your preliminary sketch on your paper and then start inking over them with a brush. As in pen and ink, don't just go over the pencil lines with your brush. Use your brush to develop the lines and give them character.

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ENAMELING for BEGINNERS

by EDWARD WINTER

As far as enameling is concerned, the basic procedure is simple enough for a child to perform. This is amply demonstrated here by ten year old Linda, who decided to make an enameled ash tray. The degree of artistic accomplishment is, of course, dependent upon the skill and imagination of the enamelist, but the steps are uncomplicated. These photographs were made for inclusion in a forthcoming book by the author: *"Enameling For Beginners,"* soon to be released by Watson-Guptill Publishers. The necessary equipment for enameling is relatively inexpensive, a furnace being the major investment. All supplies are indicated in the captions which follow. ▲



1 Ash tray begins by scribing circle with compass or suitable disk. Outline is penciled onto sheet of 18 gauge copper.



2 This circled area is now carefully cut out with a pair of tinning shears. The copper is soft and will snip without difficulty.



3 The disk is now hammered over a rounded iron to form the shallow tray. A rawhide mallet is used for this.



4 Raising the disk so that it protrudes slightly over a plank of scrap lumber, file its edges smooth.



- 5 After cleaning the ash tray with scouring powder, polish it with steel wool and then pickle it for several minutes in a mild solution of sulphuric acid. It is now ready to coat with a gum and water solution which will hold on the enamel powder.

6 Black opaque enamel is sifted onto the disk through an 80 mesh screen. Then use a mouth sprayer to blow water lightly over the damp surface. This will hold the contrasting white enamel next.

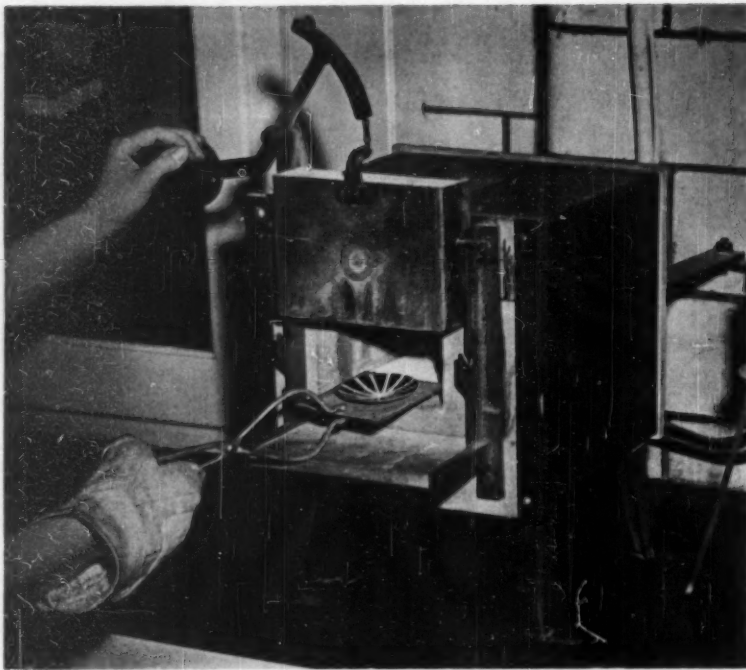


- 7 Radiating white lines are easily made by dropping the opaque white enamel between the thumb and forefinger.

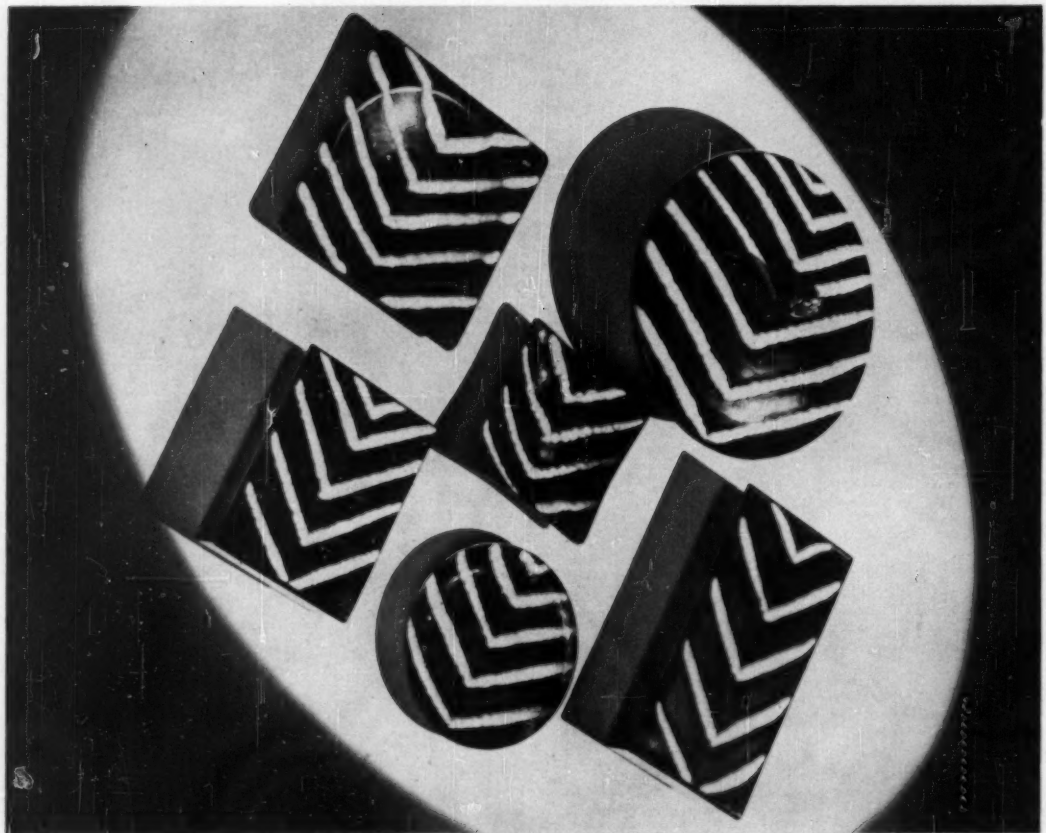
- 8 During the decorating period, water can be gently sprayed over the enamel whenever it becomes necessary to hold it in place.

- 9 When decorating is completed, all moisture should be dried out by placing the enameled object over a hot plate. (Keep it off the plate with wire mesh and metal or ceramic supports.) Drying time is about fifteen minutes.

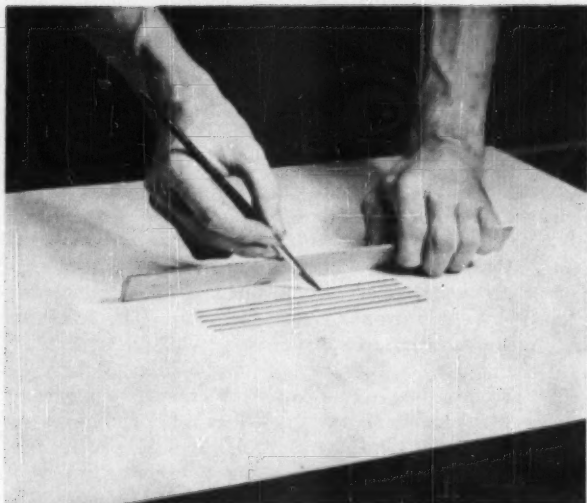




10
Place ash tray on a wire mesh (i.e., Chromel screen) and, using tongs and a protective glove, insert piece in furnace. Fire for two minutes at 1450°, then remove to cool. Back side can then be cleaned, given coat of enamel and fired upside down. Use tri-pod bits to keep tray off mesh. Project is now completed.



An array of enameled objects created as described.



You can make straight, accurate lines with a brush and a ruler using the method shown here. The ferrule (metal band holding the hairs) of your brush rides along the edge of the ruler, and the thickness of line varies with the pressure on the brush. It will take practice, but eventually you will be able to rule lines with remarkable precision.

DRAWING WITH INK:

continued from page 167

After dipping your brush into the ink, always press it gently against the inside edge of the bottle neck to remove excess ink. Before touching the brush to your drawing, try it on a piece of scrap drawing paper. A piece about 4 x 12 inches, tacked to your drawing board, will be very convenient.

You should hold your brush in the same easy, normal way you hold the pencil or pen. Hold it lightly, for the brush is a very sensitive, responsive tool.

Never let ink dry in your brush. When you are through drawing, wash the brush by *gently* rubbing it on a cake of soap until you have a lather, then rub it in the palm of your hand. Repeat this operation several times until the ink is removed. Rinse the brush in clear water, flip it to remove any excess water, shape the point carefully between your fingers and then put the brush away to dry.

Ink is very hard on brushes, but if you clean them thoroughly they will last a long time. ▲

ART FOR PLEASURE:

continued from page 145

Wet chalk painting

A soft chalk applied over a moistened sheet of drawing paper is pure pleasure to manipulate. Children will love the snap and brilliance of the tones; adults can experiment with the medium for some fascinating effects. Use dime store chalk, Ambrite or Excella brand chalk crayons and the new fluorescent chalks. Take your sheet of rough textured drawing paper, dip it or sponge it with water until it is thoroughly impregnated, lay it flat on a cushion of newspapers and apply the chalk. In a few minutes, under normal conditions, it will dry and the chalk tones will take on new brilliance. The colors may be smeared with the fingers while wet, for experimental purposes. Work on contrasting paper with the complementing tones of chalk: for example: on black or dark toned papers with yellow, red, orange, white and pastel hues; or with deeper colors on white or pale papers. The paper may be tacked or taped down tautly to lessen its tendency to shrink and ripple while drying. The finished art may be sprayed with

fixatif applied sparingly and then hung or framed under glass.

Chalk mosaics

Take your bits and pieces of broken chalk and create a mosaic pattern with them. The working surface is a sheet of heavy cardboard or Masonite which has been given a coating of adhesive or clear glue. All the bits of chalk are flattened at either end by rubbing on sandpaper, then pressed down onto the adhesive surface. The picture motif is pre-planned and a sketch followed. Keep all bits of chalk divided into piles of color, then work swiftly while the glue is wet. If desired, the picture may be enclosed within a frame. If deemed desirable, you may first coat the ground support with flat paint. This will give an overall background hue if areas are left open. Your bits of chalk should be of uniform depth—perhaps a half inch or so. (The same mosaic procedure may also be followed working with bits of wax crayon.)

Decorated chalk eggs

Easter isn't the only holiday for making decorated eggs. They can be created for any season's purpose and make excellent place cards for parties. The blank chalk eggs (available as lime nest eggs) are decorated with colored chalks, glued-on glitter and sequins and similar props. Want to make a caricature of a personality? Build up his features, using such oddments as halved gumdrops for eyes, candy watermelon slices for mouth and teeth, popcorn or tiny buttons for eyes, colored yarns for hair. Cotton tufts make fine white beards and balding heads too. Apply glue sparingly and press material down for several seconds with hand pressure. Then stand the egghead in an egg cup or paper collar onto which the party-goer's name has been written.

Make your own chalk

It's like bringing coals to Newcastle to make chalk, quite probably the least expensive art medium available, but it can be an excellent class project. Just take colored powder tempera and mix it with water and plaster of paris, then pour the thick solution into molds made by pressing a stick of chalk into block of modeling clay. (Make a line of molds down the block.) When the sticks harden, just break away the clay. The mold holes may also be well greased with Vaseline to facilitate easy removal of the chalk sticks. And, while you're at it, make your own impromptu chalkboard by coating heavy cardboard with flat black or green paint. Chalk art may be removed with a damp rag. The chalkboard is flimsy, but costs nothing to make and discard after a few uses.

Serious art with chalk

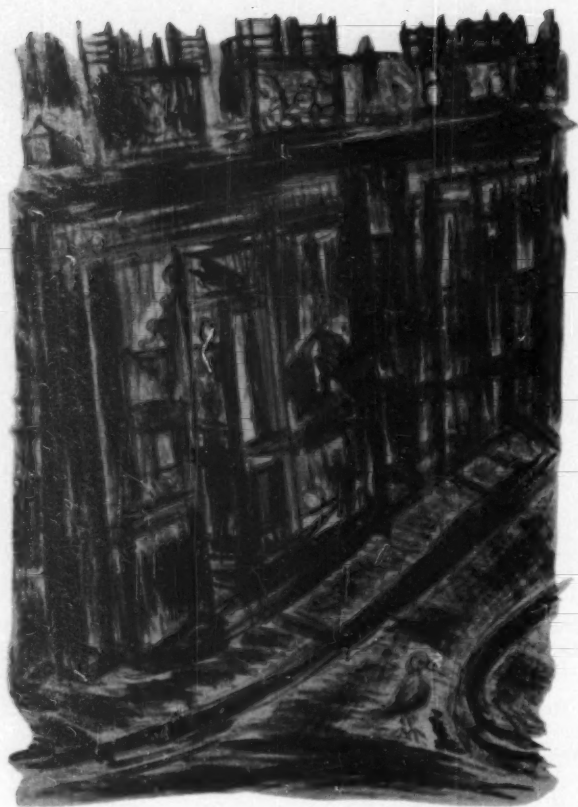
Don't be misled about chalk and its somewhat more glamorous cousin, pastel. Their relative low cost doesn't make them a child's medium. They can be one of the most enduring of all mediums for serious drawing, sketching and portraiture. Unlike watercolor, chalk doesn't fade in light. Unlike oil, it doesn't crack or demand long drying. Protected under glass against rubbing, it will last for centuries, with no appreciable alteration of the original tones. The traditionally blunt sticks may be sharpened for detail work on a piece of fine sandpaper. Chalks and pastels may be sprayed with fixatif if desired, though this tends to darken the colors. Most professionals simply protect the work with glass (or a sheet of acetate, or even tautly stretched Saran Wrap.)

WATERCOLOR AND TEMPERA

Tempera for decorating objects

Because of its normal water base, tempera (i.e., poster

continued on page 174



"RUE ST. SEVERIN" a 4-color lithograph by Irene Aronson

THE ART OF LITHOGRAPHY:

continued from page 157

of lithographs on historical themes. Other German artists, who worked in the medium of lithography, but at a later date than Adolf von Menzel, were Otto Greiner, of Dresden; Hans Thoma, who worked in color lithography and Kathe Kollwitz, of Berlin, who is also famous for her many etchings and woodcuts depicting the life of the poor and the sick of her native city.

In England, lithography was somewhat casually adopted by various artists, but they never produced masterworks to compete with those of the French. The most noteworthy Britishers to be remembered are Richard Parkes Bonington and his lithograph of "*Rue du Gros Horloger a Rouen*," and his series of lithographs of "*Voyages Pittoresque*," Thomas Shotter Boys drew architectural scenes of Paris, Antwerp, Ghent, and Rouen, directly onto the stone while at the scene of work. These views were published in London in 1839. The color lithograph "*Abbey de Cluny*" is considered as one of the best prints. Spain's great artist, Goya, also became entranced by the new lithographic process. He produced twenty-two lithographs. Most of these prints depicted the bullfight scenes of Spain.

Felicien Rops is a Belgian artist who deserves mention here. Holland also had a few artists who turned to the expression of their art through lithography. Emil Orlik, an artist from Bohemia, also belongs on the list of artists, who has produced memorable work by using the lithograph-

ic stone as a means of artistic creation. And among some American practitioners we find Winslow Homer and George Bellows.

The Steps in Lithography

Lithography is also sometimes called *planography*. It is different from the processes of intaglio and relief prints. In lithography one works on the flat surface of the stone, either a smooth or rough grained surface being employed. The texture of the stone chosen is determined by the type of drawing which is to be translated. The stones widely used are imported from Bavaria, Germany. The Kehlheim stone is most widely preferred.

The first step is the graining of the stone to be used. This is accomplished over a large sink crossed by a wooden tray on which one can rest the stones for grinding to the texture needed. As the stones are generally too heavy to manipulate by hand, it is advisable to have a trolley or similar device in the workshop to help slide the stones on and off the worktable.

Two stones are needed. First they are both wetted. The grinding is accomplished by placing the smaller stone atop the larger one which will hold the artwork. A mixture of one spoonful of carborundum and water, stirred into a paste, is poured between the two stones. The strength of the grain of the carborundum varies; 180 is the coarser quality, 220 the finer one. Generally one begins with the coarse grain and finishes up the grinding with the fine grain. The grinding is accomplished by sliding the small stone across the large one in a circular movement. The upper stone, during grinding, should never overlap the lower stone very much. One should aim at grinding the stone surface evenly. Once ready ground, the stones should be rinsed with water. No trace of the grains should be left on the stone surface. Now one uses a fan to dry the stones. They are then ready for use.

The artist either draws directly on the stone or else works by the transfer method. In the latter case, he has a drawing ready on special transfer paper which is placed on the stone and the drawing is transferred. From my own experience, there is no greater joy than to work directly on the stone, without the transfer method.

To avoid grease stains, caused by the touch of the hand on the stone while drawing, one places a wooden bridge across the stone in a slightly raised position. On this bridge the hand can rest while working on the stone, without ever touching the delicate surface of the limestone.

The materials and methods used for drawing on the stone vary greatly and it is possible to achieve truly exciting effects. For color lithography, especially, the grain of the stone is responsible for vivid luminosity of the color range used.

The texture of the stone is the all-important factor. It is possible to achieve the impression of just about any technique with relatively simple means. The effect of a pencil drawing, a crayon drawing, a pen or brush drawing, a wash drawing, or a watercolor is possible of interpretation through lithography. Even the illusion of an etching or an engraving can be achieved.

One effect which has been often, but unsuccessfully attempted is that of simulating an oil painting. The medium itself, however, offers a vast range of possibilities and great beauty can be achieved in the lithographic print.

The materials used in making the drawing on the stone

Continued on page 174

WIRE AND SCREEN SCULPTURE:

continued from page 160

This can later be painted with *Dek-All* and temperas. Usually, the natural appearance of the wire is quite satisfactory. Details may be added with bits and twists of aluminum foil, tin foil, cloth or twine. Shellacked rope is another good material for making manes for lions, horses and other animals.

Constructions should be planned so that they will be free-standing. If an object's stance makes it topheavy, it is recommended that the legs be stapled to a wood base with U-tacks.

Average time for constructing an animal is about an hour, making this an excellent classroom project. ▲

CUT PAPERCRAFT:

continued from page 150

strips through slits. When the accordion shape is opened, another startling effect will be observed. This is a transitional step toward free sculpture. The intricacy of your design is limitless, depending on your control and patience.

On page 149 are a trio of hollow cylinders. These begin by joining the two ends of the paper, first cutting into it forms, which are folded back, rolled or pressed into position. The edges can be joined together with paste, as in first one shown, or by overlap-folding as in the second and third ones. Hollow cylinders can have a functional purpose too. They make excellent paper lanterns. An example of this is shown on the bottom right of page 149. (If the center cylinder is made of transparent paper, the insertion of a candle or light bulb will provide dramatic glow.)

Culminating this novel experiment with paper design is the making of animal forms. Several whimsical treatments are illustrated on page 151. The basic form of all the animals is a tube. Smaller ones (for limbs) are made by rolling the white drawing paper around a pencil and pasting the edges together. Various shaped tubes are required, depending on the shape of the animal itself. Some parts may use cones, others long cylinders. The neck of a swan will consist of a rolled strip of paper. The tail feathers of can create a whole barnyard of these quaint and appealing a bird are simply scissored from the paper. Youngsters fellows. Paper designing is really fun. ▲

SCULPTURE WITH CANDLES:

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scribed. Her collar is made of two small, rectangular pieces with points pressed around the neck until a collar is created. For her bridal bouquet, form a small wax ball, then flatten it on one side, add a dab of glue and sprinkle on glitter to serve as flowers. Roll the stem of a bouquet into a cylindrical shape and push it firmly beneath the flowers.

Now we can tackle the rabbit. He begins in the same way as the previous pieces. He is built up to plumpness with extra bits of wax. Start around his hips, pressing in small balls of wax and gradually shaping it with your fingers as if doing a clay sculpture. When it has been achieved, it will later be covered with sheeting. The bunny's feet are shaped with more balls of wax, as is his tail. When his rough shape is made, set him down on a piece of cardboard and then cut around his bottom to provide a platform. Take a small piece of rolled wax and cut it to the

desired length for each of his tiny arms. Press these in position. (When necessary, small bits of toothpick will help hold them in place.)

A long, narrow piece of wax makes his collar. Using a toothpick as a tool, pleat it, then wrap the collar about his neck. Cut out a wax cap for his head in a contrasting color. This comes down over his face in a broad triangle and is his nose as well as crown. His mouth is simply a slit, cut in place with your knife, and then either colored with *Dek-All* or minute bits of colored wax. A wooden tongue depressor, slit narrowly, will now be inserted into the mouth and the wax pushed down to provide holes for his big teeth. These are made of rolled pieces of white wax. Oval shaped bits of red wax are the eyes, with pupils made of black wax.

The rabbit's ears are two rolled pieces of wax which have been cut into leaf shapes. Attach one end to his head and pinch the other end flat, then gently shape it in a cone. Leave the center of the ear open. His whiskers are bits of whisk broom.

The Big Bad Wolf starts like all the others. Add his legs to the torso as suggested in the photograph. Facial details are built up in the now familiar manner. His mouth is lined with red wax and a ball of black becomes his nose. His cap is formed by rolling a piece of wax into a circle and pressing it together in the back and on top. His peak is a flat piece which continues the same coloring of his coat, ears and limbs. His waistcoat is white or yellow wax.

Birds are made from scraps. First roll the material together into an egg-shaped form. Using a knife, cut the egg halfway through, placing the candle wick in the center of the egg and allowing it to come out at both ends. Then press the egg shut again. Add wax around the egg to make sure it is properly sealed and then start forming the shape of the bird. Small pieces of wax become his bill. Press them around the wick base, but allow the cord to protrude.

If you are making a chicken, add yellow wax around the top of his head and continue it down his back for feathers. A pinch of red wax is his comb. The comb will come to a point by shaping it with your fingertips. A chicken's peculiar anatomy calls for waddles to hang on either jowl. These are made by taking two pieces of red wax 1½" long, rolling them and flattening. Press them in position.

The bird's eyes are small black wax balls. His tail is simply a long rectangle which is flattened into shape and then pressed or toothpicked into position. Decorate this tail with a contrastingly colored edging of wax.

Bird wings are made of leaf-shaped sheets of dark wax. Because bird shapes are rather open and top heavy, they should be mounted on a base made of soft balsam wood, covered with *Milo-Modelit*, a clay-like modeling plastic. This comes in various colors and may be decorated to suggest the ground or a tree limb. The bird's legs are usually made of wire. If you can obtain florist's wire, it is wrapped in green plastic. Or you may use any color of electrician's tracing wire. The claws can be pushed down into the soft balsam base. They will stick into the *Milo-Modelit* nicely.

How about a barnyard prop or two? Chickens and birds look well surrounded by tiny ears of corn. These are easy to make. Just cut out three or four pieces of yellow wax into leaf shapes and roll them to form ears of corn. A small strip of beeswax sheeting can add interesting, corn-like texture when pressed in shape. A bit of green wax provides the stalk.

Try candlestick sculpture. It is surprisingly easy to do and the end result can be a real conversation piece. ▲

THE ART OF LITHOGRAPHY:

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range from lithographic crayons Nos. 1, 2, 3, 4, and 5. These crayons come in sticks or pencil form. Ordinary pencils, good quality, H, HB and B, come in handy. A stick of red Conté is essential. It is with the red Conté that the first step of the drawing is laid in, on the stone. Later, the red line is drawn over with black crayons, or *tusche*. The *tusche* is either applied by pen or brush. Many variations of tonal quality can be gained either with the use of the crayons or with the use of the *tusche*. To get dark crayon effects one uses a soft crayon, and one goes over areas more than once till reaching the desired nuance. *Tusche* is thinned out with water while being heated up. The thinner the *tusche*, the lighter the tonal quality.

Another method is working from black to white. This is accomplished by covering the stone, where the drawing is to be, with *tusche*. Later, the drawing is literally scratched out, with a scraper, needle, blade, etc. This is really working in reverse order, in comparison with the technique mentioned earlier in the article. White lines and areas are obtained by applying gum arabic to the lines or areas, which should later print white.

Once the drawing is completed, the whole stone is evenly covered with a solution of gum arabic and water. This is allowed to dry and then washed off with water and a cheesecloth. The stone now is ready to receive a mixture of gum arabic and nitric acid for the "etch." The experienced lithographer knows that it is always preferable to under-etch than over-etch. The so-called "etch" is brushed on with a large brush, evenly, across the entire stone and left on to dry overnight. After this step, the stone is washed with water, gum arabic is spread over the stone and wiped evenly with a rag. Again the stone is left to dry, either by fanning, or by evaporation. Now, the crayon or *tusche* drawing is removed with turpentine. Once more, the stone is sponged with water. The stone is ready for inking and proof-taking. It is essential to keep the stone constantly moist. The ink is received only by the greasy parts of the stone (i.e., the drawing image), but it is repelled by the rest of the damp surface.

Ink is applied with a roller and the stone is now placed on the press-bed of the lithographic press, ready for the first proof-taking. The first proofs are always rather light. A word here, about color printing. The same method pertains to color printing, except that each color requires another stone. There is always a keystone, containing the complete composition of the planned lithograph.

A final word on the selection of paper. Proofs are taken on newsprint. A fine paper for final proofs is "Rives" paper. Lithography is a thrilling and suspenseful process. No artist can long avoid its challenge. ▲

SCULPTING WITH WIRE AND FLAME:

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creation and planning encompassed three years before Lippold took his work to the museum for installation. When he did arrive to build the piece, onlookers were baffled. For days on end they guessed at what he was doing. The general consensus of opinion; he was installing a new electrical system. Later, one viewer decided it was a new kind of tapestry. But as the sculpture finally evolved to its finished state, it proved again to be worthy of critical plaudits and now normally jaded New Yorkers proudly

point it out to tourists the moment they cross the Museum's entry.

Since this second success, Lippold has gone on to many other top drawer commissions and his wiry works, spun like the webs of so many golden spiders, have become a hallmark of quality and taste and adventures in originality. His most recent commission stands against a large wall in the reception area of J. Walter Thompson, Inc., the world's largest advertising agency, in downtown Manhattan. Lippold explains his departure from the traditional materials of sculpture:

"In our century we don't look at things; we look *through* them. This is the age of space, when the eye and heart are intent upon defiance of gravity. We penetrate *into* objects, and impose no limitations on our imagination and perception. A sculptor like Henry Moore, for example—he opens up stone and wood before our eyes. Gabo uses transparent materials. I work with wire."

Lippold works with many kinds of wire; he uses varying thicknesses of copper, nickel, brass, silver, gold. To this artist, silver is the essence of femininity and is his favorite medium for expression. He has no need for the customary sculpting tools; you'd be hard put to find a mallet, clay or chisel in his barnlike studio located an hour's lazy drive from Manhattan. It is more an immaculate laboratory with countless rolls and bars of metal everywhere. His models exist only in his head until their final translation. At present he is working on his most audacious project yet: a wire construction to surmount a foundation in the central square of the art museum at Akron, Ohio. The execution is still months, perhaps years away. He has visualized an explosion of flames and water bursting from the fountain base. The use of wire itself may be abandoned in this project. Instead, Lippold may create sculptured forms with a fire curtain of blazing gas. How to curve the gas into shapes and forms is the challenge. How will he do it? Lippold still isn't sure. But he will. ▲

ART FOR PLEASURE:

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paint or showcard paint) is a delightful medium for the young artist. It washes out from clothing and hands easily with water dilution, it dries rapidly, can be moistened again for further manipulation, and its opacity makes corrections a simple matter. Make a color error? Just paint over it. Use tempera for decorating wooden objects, paper and cardboard, glass and plastics, stone or ceramics. It will adhere to almost any surface. For permanency, spray or brush clear lacquer on top.

Typical objects for tempera decorating

Chalk eggs . . . shoebox dioramas . . . wooden gift boxes . . . pebble and stone caricatures . . . posters, onto which three-dimensional materials like wood shavings, cotton, yarn, sequins, glitter have been added . . . picture frames (and ornate frames converted into shadow boxes to hold art objects, or as mirrors) . . . paper gift boxes.

Watercolor art mated to crafts items

Because watercolor is easily altered by light and damaged by moisture, it should be protected under glass. But—why not create delicate originals and then glass them over as the decorative element on top of a cigarette box, or underneath a glass topped table? How about slipping a painting under the protective glass of a vanity tray? The motif can be keyed in hue and feel to a young lady's boudoir.



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